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# ADVANCED MANAGEMENT

*Quarterly Journal • Society for Advancement of Management*

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DAVID CUSHMAN COYLE

Industry Looks to Education
FRANK M. SURFACE

The Ingredients of Industrial Peace and Conflict
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Line and Staff—Their Roles in the Organization Structure
J. K. LOUDEN

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# Comment

THE following concluding paragraph from an article entitled "The Double Crisis" by Aldous Huxley in *Science News Letter* for March 29, 1949, supplies the text for this Comment:

> "Every day brings its quota of some 55,000 new human beings to a planet which, in the same period of time, has lost through erosion almost the same number of acres of productive land and goodness knows how many tons of irreplaceable minerals. Whatever may be happening to the superficial crisis, to the crisis on the political, or industrial or financial levels, that which underlies it persists and deepens. The current, almost explosive growth in world population began about two centuries ago and will continue, in all probability, for at least another 100 years. So far as we know, nothing quite like it has ever happened before. We are faced by a problem which has no earlier precedent. To discover and, having discovered, to apply the remedial measures is going to be exceedingly difficult. And the longer we delay, the greater the difficulty will be."

The manager today who asks himself how his labors relate to the larger scheme of things in a world which he may dimly realize is not completely dominated by a balance sheet and a board of directors might hopefully raise his eyes to the larger and more global setting of his task. For the urgent problem at the level of a world view is: How will the modern world support, in the style to which they properly aspire, the present and growing population of the world? How shall we reconcile population pressures and productive resources?

The problem is not basically one but several; nor is it one of wholly material aspects. Also, it is not an internal problem of our own nation as such. It is a problem of an accelerating birth rate in certain identifiable parts of the globe; of potential productive capacity that has to correlate material resources to human cooperative drives, to managerial and leadership skills, to applications of electrical or other power mechanically applied. And it is also the fascinating problem of the clear, world-wide, yeasty working of some spirit, (basically democratic, in my opinion) that is animating the plain peoples of the world to assert their individual and associated sense that the world has to do better by them, materially and spiritually.

The ordinary folk of the world—whether in China, India, Russia or Youngstown—are groping to an affirmation that they are as good as anyone else, if not better! The egalitarian or equalitarian impulse has an explicit and cogent power of unprecedented appeal. Its manifestations are many, variegated — sometimes ill-advised, but always virile, potent and at bottom creative, however terrifying they may seem to those "above" who see the folk seething, yearning and pressing upward. It is not a "revolt of the masses." It is an affirmation of the resilient, aspiring human spirit.

In America, the pressure for this upward thrust has the good fortune, under our wholesome system of representative government, to be more orderly, more channeled, more coherent than in many another area. It also leads in our country to a falling birthrate. But that in every area this thrust can take bizarre forms no realist should deny; and no idealist should be unduly discouraged by the fact. But if the bizarre, the incoherent, the aspiring are moving to express the dignity and creative urge and upthrust of the human spirit, the reality, the power and, indeed, the glory of this striving are surely not to be denied or feared by those burdened persons who happen presently to be the ones who manage and direct.

Rather for those who manage—at any and every level—the assignment is (1) to recognize this universal urge; (2) to honor its unconscious integrity and permanent validity; (3) to help channel its enormous creative power; (4) to guide, lead and coordinate its productive potential; (5) to relate its productive power to the world's crying need for technically possible abundance and (6) to tie the rising urge for democratic, equalitarian aspiration to this imperative need, by a cooperative effort, to get out and distribute the goods that the pressure of a rising population requires. Only so can we avoid literal starvation in a world where scarcity is an invitation to accept impossible communistic claims and promises of survival through an abundance that is falsely promised.

Given only a modest stretch of imagination on the part of today's manager, his assignment is to create and lead a team that he is helping to motivate to willing and eager work. He requires junior partners and collaborating colleagues who are getting out the goods at a low cost and fair price, in order to provision the multitudes who have to be cared for under the ominous pressures of this increasing birthrate. Moreover, any relative

abundance in one country, namely our own, and a material standard of life conspicuously higher than that in other lands—this is no solution. It is an invitation to hate and envy in those other lands; and a temptation to selfishness in our own.

Here is, then, the new managerial mandate of the third quarter of the twentieth century. The population problem supplies the ultimate rationale, the social imperative, of management effort approached in a professional spirit today. The manager has, of course, to know that he serves a board of directors. But who is the board of directors serving? And what of the stockholders? All are at bottom—and not too indirectly, either—the servants of a world population that asks to be fed in body and spirit. A protest in some form or fashion threatens or is a fact. That is one of the explanations of the rise of Communism. In China, India, Russia and Youngstown, the lowly people will increasingly be saying in effect, "We take over the productive resources and somehow make them productive for ourselves, if you who now manage do not lead the way and get results that assure abundance and survival."

The productive resources of the world, including America, can be made more universally available for the fullness of life of the plain people at any moment when the men of management understand that they are the servants and trustees of the people—including and extending beyond the legal device of our American system that would consider them solely the servants of the stockholders.

This Comment may seem cast in too sweeping and even too grandiloquent an idiom. But it is addressed to a sweeping and insistent problem—the adequacy of production to enable a growing world population to survive in peace and freedom.

We in America, in a sense more literally than we always realize, not only feed, clothe and shelter ourselves. We are helping other nations to do the same. That is what the Marshall Plan is. This is also what foreign trade basically is—if we would allow a free world market to prevail.

We in the United States have been favored by a conjunction of circumstances—soil fertility, mineral and forest riches, inventive genius, managerial skill, democratic know-how, intelligent and free worker-citizens. The world rightfully looks to us for guidance in its population-production dilemma. We have both goods to give and sell and democratic freedom to teach. And under wise managers our productivity could be heightened and our democratic freedom could be more persuasively exemplified.

I alluded at the outset to managers who may in a too short-term and unimaginative outlook feel that they labor without benefit of any true social purpose. I conclude by suggesting that a realistic grasp of the role of today's managers all over America could hardly assume greater global importance. Let managers face their workers and affirm: There is no productive effort more critical and vital to the civilized world's survival than that with which we here are together charged. Our obligation is to know how to bring into and hold in productive partnership the workers of America. Our common goal has to be to level up the material standard of life of restless peoples beyond our borders; to show that the dignity of the common man and of his creative spirit can be appealed to and affirmed in the common task of strengthening the material foundations on which alone any tolerable survival can occur.

If managers can gain a vision of the needed abundance, they can lead and inspire their fellow-workers to catch the same vision. And they can then labor in sportsmanlike teamplay to the end that the population pressures can eventually be conquered by democratically elevated standards of civilized living, based on a productivity as yet undreamed of.

ORDWAY TEAD

*(Note: An exposition of the world food problem, somewhat different in emphasis from that of Mr. Huxley, is supplied by Bruce Bliven in an article, "Will the World Starve?" in* This Week *magazine, April 17, 1949.)*

*Comparisons among various-sized plants in some industries indicate that the medium-sized company may be more efficient in its use of materials and manpower than the big company. Bigness in industry cannot be blamed on the engineer, whose aim is to find the simplest, smallest unit that will perform a task efficiently.*

# Size vs. Efficiency — as the Engineer Sees It

By DAVID CUSHMAN COYLE

THE relation between size and efficiency is not clearly known to the public, whose votes determine the legal climate for big and small business. The common belief that large companies are more efficient than small ones often conflicts with the necessities of a culture attempting to maintain a system of competitive free enterprise as a substratum for democratic government.

The major purpose, therefore, of a study of engineering efficiency should be to show to the public the relative costs of large and small operations, as a guide to public policy. To a minor degree, more definite information on the optimum size of shops might influence business planning, but there the present state of ignorance, in any particular industry, is not so profound as the public ignorance of the relation for industry as a whole.

The general concept of efficiency applies to all planned activity, and refers simply to the desire of the planner to get the most for the least cost. Ordinarily, an operation has several objectives that may conflict, so that its efficiency in attaining one objective will be different and possibly incompatible with its efficiency in another direction. Moreover, an operation ordinarily has more than one party interested and able to exert an influence. The public in particular is usually interested in any business operation, contributing to its costs and obtaining benefits from its output, wage payments and taxes. Any operation, therefore, is likely to have a number of separate kinds of unit cost by which its efficiency may be rated—unit costs viewed from different standpoints and unit costs defined in terms of different types of benefit or alternative cost factors. Planning by any of the parties at interest will utilize that party's concept of benefits, adjusting the conflicts to suit itself, often at the expense of the other interested parties. The engineering types of efficiency may not dominate the planning even of the business man; in public policy they may be subordinate to such higher considerations as community welfare, economic stability, resource conservation or national defense. The engineering efficiency needs to be defined, therefore, not in order that it may determine policy but that its weight may be clearly assessed.

Engineering efficiency cannot be clearly separated from the higher types, but may be taken as referring to the lowest and most nearly material aspects of an operation. Pure engineering theory may be applied to the intrinsic character of a machine, such as a steam turbine, and there in certain cases a theoretical standard can be defined, by which the machine can be rated as ninety percent or twenty percent efficient. But with the addition of human work, the theoretical standard disappears. The efficiency of a shop, or of a department in the shop, is defined by comparing its unit costs with those of others engaged in similar work. Management engineers try to summarize the experience of performance in various types of operation in the form of work standards but these do not pretend to be absolute measures for judging efficiency.

Operations are rated by comparison with the same operation in past time, or with a similar operation in another place, and all such comparisons suffer from

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*David Cushman Coyle, an engineer himself, is the author of several books, of which the latest is* Day of Judgment.

lack of identity in factors that may be irrelevant to efficiency. For instance, it is likely that among clothing manufacturers the family size concerns will average less efficient than those using union labor, not because of technical factors, but because a family size concern can survive on a rate of return that would eliminate a larger shop. Similarly, any unique advantage, such as isolation, patents, monopoly powers, or tariffs, may protect an operation from competition. With good management, a protected operation may turn its advantage to profit, but the average efficiency of the protected class will generally be low because of the retention of deadwood. If certain size classes have more protection than others, they are likely to be less efficient for that reason; from an engineering viewpoint the data may be irrelevant if the protection is accidental and liable to removal by a change of law or circumstance.

***Basis for Study of Engineering Efficiency***

In any shop, the physical output in terms of goods of a given quality can be taken as a sufficient objective in a study of engineering efficiency, neglecting higher abstractions such as distance from markets, public desire or need for the product, etc. Then the technical efficiency can be defined in terms of unit cost of the product, relative to similar processes elsewhere.

The most concrete unit costs are costs in capital goods, man-hours and raw materials; capital goods in turn are reducible to man-hours and raw materials absorbed in their production and distributed in the production of their product. Where possible, therefore, the efficiency of a plant should be studied first in terms of manpower and raw materials, separately, before taking up dollar costs.

The technique of rating processes in manpower alone was partially developed in 1933 by Alford and Hannum, who studied a number of industries in terms of kilomanhour costs of unit output. They found startling differences among plants in the same industry, indicating, in the main, differences in the use of technology, though not necessarily corresponding differences in money cost.

The kilomanhour rating for efficiency was in line with the oldest American tradition, since most of our history has been that of a bridgehead in which men were scarce and planning was directed mainly toward labor-saving. The apparent surplus of labor during the Great Depression temporarily masked the value of man-hours, but world political conditions seem to indicate that, in Western Civilization for the present, manpower is a definite value, and kilomanhour costs are significant in policy formation. A revival and extension of Alford and Hannum's work seems to be indicated.

Unit costs in terms of raw material are strange to the American tradition, which has generally favored wasting materials whenever either labor or money could be saved by doing so. Development of the conservation movement has called attention to material costs, and they gained high visibility during the recent war. For example, the tonnage of steel required for the capital plant to produce synthetic rubber was more crucial at one time than the other cost factors, and the relative efficiency of alternative sources of rubber was mainly a question of relative unit costs in terms of steel. Ordinarily, raw material efficiency appears in terms of ability to avoid waste or to use low grade or plentiful materials.

Unit costs in terms of dollars should be studied if possible inside the shop to gain an understanding of technical efficiency by itself, apart from the price of material or the cost of distribution. Wage rates for equal skill should be equalized in order to judge the engineering efficiency of different imposed factors, such as size, mechanization and management techniques. For engineering purposes, workers are regarded as reacting normally to conditions for which management is responsible; a low unit labor cost, therefore, is ratable as efficient only if it is based on productivity rather than low wages. In other words, crude figures of dollar cost become more valid as they become more closely identified with cost in terms of material and man-hours.

It is obvious that higher levels of unit cost estimation can be approached with a similar engineering attitude, though to a diminishing degree. Shop costs taken as including costs of material and of distribution can be compared with those of operations of larger or smaller size. The engineering attitude calls for definition of the added factors in material terms as closely as possible; that is, any advantages gained by monopoly, affiliation, vertical integration etc. should be excluded at this level and considered only in terms of much more general measures of efficiency. A saving of cost that is in fact only a money transfer gained by squeezing either suppliers or labor does not appear in the national economy as a saving and is, therefore, unsuitable for inclusion in an engineering assessment of efficiency.

Company efficiencies ordinarily differ from those of the shop by the effect of common management covering two or more shops. Two kinds of series have been collected, one showing profits relative to size of company, the other showing unit costs. An engineering approach

to the relation of profits to size requires the elimination of so many anomalies in capital valuation, and of monopoly effects, that it leaves small nourishment in the residue of facts. Comparison of profits tends to beg the question of capital values, and even more the question of designing public policies to reward the highest efficiencies with the highest chance of competitive survival.

***Evidence in Favor of Smaller Units***

Unit costs in different-sized companies, on the other hand, may have a considerable validity when the products are similar, and external influences, irrelevant to efficiency, can be blanked out. Evidently there is a real engineering question as to whether a larger or smaller concern, using one or many separate shops, is most likely to show low unit costs in material, man-hours or dollars. The evidence is spotty and the extent to which it is vitiated by anomalous influences is not always clear. But the fact that existing data often indicate high efficiency in small or middle-sized companies is so contrary to popular belief that further study is called for, in view of the importance of this question in public policy.

For example, the Federal Trade Commission reports that in March and September 1945 the lowest cost of bread was found not in the Big Four but in ten medium-large companies. The Big Four had considerably lower costs for material, which appears to be irrelevant from the engineering standpoint as it was probably a transfer saving based on heavy buying power. In general and administrative costs also, the big concerns had an advantage, much of which probably represented a real saving based on size. But the labor item and the selling and delivery item were so much lower for the ten medium-large concerns as to outweigh the costs of material and of management. Costs for small companies were generally higher, indicating that the most efficient way to make bread of the common commercial quality is in large but not mammoth companies. Similar results were found in studies of synthetic rubber tires for August 1943 and of fertilizer in 1941-42.

Evidently there is a need for intensive study of a large number of industries to find the size-efficiency relations peculiar to each. So far as present information goes, it seems that, in some industries, when the small or medium-sized companies are merged into large ones they may lose efficiency in the engineering senses of the word, though the combination may be a more efficient instrument for channeling the profits into the hands of an inner group. In such cases the importance of engineering estimates of efficiency lies in their effect on public policy, since the engineering definitions of output and cost are closely related to the public objectives.

Present knowledge of the size-efficiency relation is not confined to the scanty statistical series in which the two are more or less definitely correlated. A number of technical factors are recognized by engineers as probable causes of higher efficiency in a particular size class in various industries.

***Size of Machines***

Obviously in a few industries where the most efficient machine to handle some essential part of the process is large, the whole enterprise has to be big enough to keep that machine busy. Atomic power is the extreme type; other examples of technological bigness are found in the manufacture of automobiles, sheet glass, cigarettes and typewriters. The majority of industrial products, however, can be produced by machines, the best of which are small enough to be fully used in a shop employing less than 250 men.

Mass production requires a sufficient size of operation to make and sell a continuous stream of products exactly alike except for minor features that do not interfere with continuity. The essential points in mass production are a continuously running assembly line for heavy and complicated products, and the use of straight-line processes for small pieces and sub-assemblies. The purpose of these processes is to avoid batch handling, resetting of machines, intermediate storage and paper work. The necessary size of operation to utilize true mass production depends partly on the size and complexity of the product and partly on the extent to which parts and sub-assemblies are brought in from subsidiary shops or independent producers. Many a small shop is engaged in mass production of a simple product by a fully organized straight-line process; a larger shop could not be more mass-productive, if it had ten such straight-line processes running in parallel.

Technical changes in machinery or processes during the age of steam were usually in the direction of larger size, but they have become mixed by the advent of electricity, chemistry, biology and electronics, all of which deal with submicroscopic activities. Even machinery is not consistently megalotropic. The continuous casting process in steel is reported to have cut the necessary size of a steel plant from a minimum of one million tons per year to about a hundred thousand tons per year. This technical shift toward smaller size comes at the moment when the ending of the basing point system opens possibilities of decentralization to the in-

dustry. Other technical changes point the same way. Electric motors can be smaller than a steam engine, and are more easily adapted to small and scattered shops. While some chemical processes require large plants, others, such as the TVA cooking technique for cottonseed oil extraction, are helpful in small installations. Hard roads and trucks tend to facilitate small local operations.

***Engineers Tend Toward Simplicity***

Perhaps the most obvious feature of the size problem to an engineer is the effect of complexity on efficiency. Engineers often design highly complicated machines and complicated enterprises, but they do not pursue complexity for its own sake, as corporation lawyers and financiers are apt to do. Engineers in these days are usually free of the fear of witchcraft charges, while technical secrets, if there are any, cannot long be protected by fooling rival engineers with mumbo-jumbo. The engineers react to this freedom by streamlining as far as possible, cutting out all useless filigree and obsolete gadgets. Even mass production, in essence, is a simplification, an arrangement of machines for the express purpose of avoiding records, orders and supervision.

To an engineer, therefore, it is evident that smallness is an objective, not always to be attained, but generally to be sought. The smallest machine that will do the work efficiently will be generally the best for the efficient design of the shop as a whole. The smallest organization that can operate with a full use of the latest technology is likely to be the most efficient because it is simple and least likely to get out of order. People, as cogs in a machine, are still not merely cogs to the industrial engineer. The fewer people there are in the machine the less coglike is their action, the more human they are, and the more apt to understand their work and adjust themselves flexibly to changing conditions. Only in a big organization do people usually become cogs and require human relations engineers, at considerable expense, to set up techniques for relaxing their rigidity and restoring their humanity.

Bigness for its own sake occurs for other than engineering motives. Some of it obviously comes from mere emotional megalomania among the captains of industry. More, probably, is based on a simple desire for power to enjoy the profits of monopoly. The contribution of the lawyers is at times evidently pure witchcraft, a weaving of spells and manipulation of colored smoke and ceremonial dances, not for pleasure alone but to make sure that the public, the Congress, and the courts will be unable to discover what goes on. This necromacy is efficient for its purpose, but from the viewpoint of the public, that wants more goods at less cost, many of the features commonly associated with bigness do not contribute to efficiency, and are not even designed to do so.

Although an engineer can easily see that his own main interest, production at low cost, is best promoted by using a size for each operation that is big enough but not too big, this principle is necessarily obscure to the public. Tradition and the experience of coming out of the cramped conditions of Europe into the magnificence of America have confused our judgment. We desperately want the freedom we came here to find, but our landscape from Niagara to the Grand Canyon has conditioned us to admire bigness, and bigness may be a threat to freedom. To release us from this confusion, an important contribution can be made by the social sciences, if they can collect and translate into the common language the available facts about what the public gets from small, medium and big business, and what the public has to pay. Efficiency is not all the public wants or needs; efficiency may at times be sacrificed for more urgent necessities; but the public needs to know where the efficiency lies and what it amounts to, so that policies can be chosen with a realistic understanding of benefits and costs.

*To be certain that it is hiring young men and women who can eventually take over the management, a company looks for college graduates who have personal integrity, can think for themselves, have an understanding of our economic system, know how to relate one fact to another, have rounded knowledge in several fields, can use English effectively, and recognize employees' right to a satisfactory way of life. Industry, on the other hand, has an obligation to sponsor university research in the social sciences.*

# Industry Looks to Education

By FRANK M. SURFACE

SINCE the principal business of education is to prepare young men and women to take their proper places in the world, as well as to provide them with a cultural background which will enable them to live fuller lives and to contribute to society's advancement, it would seem proper to discuss the kinds of men and women industry would like to have to carry on its activities.

I am speaking here only of what industry expects of college education. About three-fourths of our high school graduates go to work without further formal education. The remaining twenty-five percent continue their studies in colleges, universities or other schools. This group should, I presume, represent the more capable segment of our population. That this is true might be questioned, but at least it is the segment which receives special advantages in our social system.

Not infrequently, individuals who have not had the advantages of advanced formal education become leaders in their fields or in the nation. This points to the possibility that our methods of selecting men and women for advanced education may not be perfect. How much better, if any, these individuals would have fared had they had additional educational advantages is a question one cannot answer.

Obviously, not every college graduate who is hired by industry is going to become a major executive. Yet the opportunity is open to each one if he has the ability, the training and the make-up to do the job better than his fellow employees. We have many striking examples, in our own company and in others, of those who have risen to top positions, although starting as office boys and junior clerks.

Corporations in particular are always on the lookout for men who can become leaders in their field, because a corporation's charter runs in perpetuity. As long as that corporation serves the public and performs its social responsibilities it has the possibility of continued existence.

No one group of men guides the policies of a corporation for any long period of time. I came with the Jersey company less than sixteen years ago—a short time in comparison with the records of most Jersey men. Yet today only two men out of the eleven on the Jersey board of directors were on the board when I came.

While there is, of course, a good deal of continuity in policies and outlook, the Jersey company itself is today quite a different organization from the one I joined, as recently as the early thirties. Because important changes are taking place all the time, it behooves the present management of a corporation to be certain

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that some of the men and women who are being employed today will have the ability to take over management in the years to come.

What, then, does a company look for in a new employee who is a product of our American college system?

To my way of thinking, the first and most important characteristic for an employee is not only personal integrity but mental honesty. He ought to have, above all, an open mind—one which searches for facts and, once these facts are in hand, draws conclusions from them, irrespective of previously held opinions.

Next, we want employees who can think for themselves, who are or can become self-starters, who are constantly offering new ideas and new suggestions. These, to me, are the marks of a good employee and one who is likely to become a leader in his field. But there are other desirable characteristics, too, some of which are more closely related to college training.

Industry, I believe, has a right to expect that a college-trained man or woman whom it employs will have a good understanding of our economic system and the forces that make it work, an appreciation of our American competitive enterprise system and its achievements.

Graduates who seek employment in specialized fields are, of course, expected to have intensive training in those fields. But we are not interested in walking encyclopedias. We can acquire books which will supply that kind of information. What we do want is men who can think and can use their knowledge constructively.

### *Training That Develops a Philosophy*

The kind of training we are interested in is not necessarily that which crams the student's mind with facts, particularly isolated facts. Rather, it should be the kind that develops a philosophy—a relation of one fact to another and to the general scheme of things.

There are a few other things that we would like to have in an employee. It goes without saying, I think, that he should have a reasonably rounded knowledge in several of the principal fields of learning. The engineer should have some smattering at least of history, sociology and literature. The social science student should receive some training in the physical sciences and in mathematics, particularly in the methodology of these subjects.

There is, however, one field to which I should like to call special attention. It is the ability to write and speak the English language.

In some hundreds of young college men and women who at one time or another have come under my jurisdiction, the greatest fault I have had to find is in this field. Too often, young employees who are capable in other respects cannot set down their ideas in succinct and forceful English. It is a serious handicap because, however good ideas may be, they are worthless unless we can sell them to other people.

All of us have to be salesmen. In the first place, we have to sell ourselves and that is a never-ending job. Next we must sell our ideas and selling ideas is a more difficult task than selling commodities.

When I was in charge of sales research for the company, I found that doing the research was the easy part of the job. The real task was selling the results of that research to executives in a way that would persuade them to do something about it. The best research report is worthless if it reposes in somebody's filing cabinet.

There is one other point that I should like to comment on in this connection. The men who are going to advance to administrative jobs in the future must have something more than the mere technical training in their respective fields. I can perhaps best illustrate what I mean by referring to changes that have taken place in the viewpoint of responsible management in the last quarter of a century or less.

### *Labor's Investment*

The business executive today recognizes, of course, that stockholders who invest their savings to furnish tools and facilities expect some security and a reasonable return on their investment. Otherwise, they will not continue to furnish the tools necessary to create and maintain jobs. But a progressive management recognizes also that tools are useless without men to operate them. While the owners invest their savings in an enterprise, labor invests all it has, namely, time and skill. Labor, too, is entitled to reasonable security and a reasonable return on its investment.

Forward-looking management today is recognizing that the objectives of a business enterprise are not only to furnish useful products and services to consumers but also to make possible a satisfactory way of life for employees. People to be happy must not only earn enough money to meet the ordinary needs of themselves and their families but they must have an interest in their work. They must maintain the self-respect and feeling of personal importance that make life worth living.

Perhaps we have not yet learned enough about how to do these things in modern industry, but the fact that they are recognized as necessary means that we are on

the way to a solution. It is one of the jobs that future executives will have to carry forward to completion.

I have pointed this out at some length because the man who is to become the leader of tomorrow must have an understanding of the human aspects of business as well as its material features. Any guidance that can be given the college student along these lines will be valuable both to him and to industry.

In addition to the preparation of young men and women to take their proper places in the world, there is one other thought I would like to offer. Industry expects that education and educators will take the lead in advancing various fields of learning.

That industry is vitally interested in this is evident from the support which numerous companies are giving to university research, particularly in the physical sciences. Much of the support is for research in pure science as contrasted with applied science. Obviously, industry has been sold on the benefits it can derive, perhaps only over a long period of time, from university research in these fields.

When a board of directors makes a contribution of its stockholders' money for any purpose, it must be prepared to justify that expenditure if called upon. Plainly, the directors of many companies feel that they can justify such support as in the long-term interest of their stockholders.

***Research in the Social Sciences***

No such support of research has been forthcoming for the social sciences. Yet the biggest problems that industry faces today are in the field of human relations. If industry could be shown a type of research in the social sciences that would be likely to help improve employee-management relations, or customer relations, I believe the opportunity to support it would be welcomed.

In my opinion, the fault, as usual, lies on both sides. It seems to me that the social sciences in general have not developed a type of factual approach to their problems that inspires confidence in progress toward practical solutions. If they could adapt to their own use the types of technique that have proved so fruitful in the physical sciences, I believe we could look for greater progress.

Industry, on the other hand, has been too busy and too shortsighted, perhaps, to take the lead in offering the stimuli which might lead to more fruitful work in this respect. Let us hope that in the years ahead this situation will change.

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# Sanford E. Thompson

**(1867-1949)**

PATIENT, sober determination, scientific integrity and analytical skill, a sound grounding in the doctrines and practices of scientific management, a personal modesty to the point of shyness, a steady and growing influence because of this rare combination of splendid qualities—it is for these reasons that our Society does well to mark with sadness and regret the passing of our fellow-member, Sanford E. Thompson.

He was a co-worker and co-author with Frederick W. Taylor. His professional career in management engineering covered two generations and embodied both managerial and technical contributions of significant value. His sense of public service was acute, resulting in a lifetime of supplementary labors on public commissions and voluntary bodies in great variety and with great distinction.

The management movement suffers a major loss in the passing of one of its most prominent exponents—a member of the "old guard" who exemplified the finest personal and professional qualities of a pioneering generation. Such losses cannot be replaced. They only leave those who carry on humble and determined to keep the faith.

ORDWAY TEAD
*For the Directors of the*
*Society for Advancement of Management*

***Comparison of the industrial relations in two sharply contrasted industries suggests that: the atmosphere in which negotiations begin has an important effect on future relations; agreements are not as effective when written by an outside agency; industrial conflict makes its effect felt for several years; the characteristics of an industry determine those of its employees and managers; collective bargaining should be considered a device for improving relations; employers and union should not be irreconcilably divided in their economic beliefs.***

# The Ingredients of Industrial Peace and Conflict

By PAUL ELIEL

*This article is based on material gathered before the beginning of the coastwide longshore strike on September 2, 1948. The strike was terminated by an agreement reached on December 6.*

*What follows is believed to represent a fair statement of the historical differences that have characterized the pulp and paper industry and the stevedoring industry on the Pacific Coast during the fourteen years preceding the consummation of the most recent agreement.*

*Certain aspects of the 1948 negotiations, the terms of the settlement, and some subsequent developments make it appear likely that an important historical turning point has been reached that marks a change in the attitude of both employers and longshoremen. It also seems possible that, for the first time since collective bargaining commenced between the Waterfront Employers Association and the International Longshoremen's and Warehousemen's Union some fourteen years ago, the parties have made up their minds that the new agreement has to be made to work. A number of aspects of the negotiations and of the agreement point in this direction. One of the most significant evidences of the possibility that an era of good feeling has been inaugurated is the fact that, for the first time since joint negotiations began, the parties were able to agree on an arbitrator for the industry rather than to have to request the U. S. Secretary of Labor to make the selection.*

*The fact that the new agreement is for three years, with provision for annual reopening as to wages, as compared to a maximum term of one year for prior agreements, with some running for even shorter periods, is an important indication of the satisfaction of both employers and longshoremen with the contract. This, in turn, should tend to promote continuing peaceful relations. Other aspects of the new agreement which seem to indicate that peaceful relations are likely to continue over the life of the agreement are the fact that it was underwritten by the Congress of Industrial Organizations which had two Vice Presidents sitting in as observers during the entire negotiations and was also underwritten by the San Francisco Employers Council on behalf of the Waterfront Employers Association. It may fairly be assumed, therefore, that the new agreement is sufficiently advantageous to both sides to assure the normal relationships that may be expected*

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*to exist between a mature organization of employers and a mature union.*

*The apparently changed relations of the parties, which many competent observers believe may well be enduring, make the conclusions reached in this article a statement of what has gone before rather than a prophecy of what lies ahead.*

—Author's note

* * *

WHAT are the ingredients of employer-employee relations that make for labor peace or labor conflict? Why is it that in some industries there are uninterrupted relations, while in other industries the record is packed with stoppages and conflict? Is there something inherent in the nature of an industry that produces these diverse conditions? Or should one look to the character and quality of the employers or the employees or both to find the key to stability or instability? Does the past history of the industry give a clue to the subsequent course of industrial relations?

Two industries on the Pacific Coast have had such radically different histories since they commenced to deal with unions while, at the same time, they have enough points in common that an interesting and, possibly, enlightening parallel can be drawn between them. In both of these industries collective bargaining commenced at almost exactly the same time some fifteen years ago. Both embrace the three Pacific Coast states. In each about 15,000 workers are employed. Each is covered by a master agreement. In both there have been substantial improvements in wages and working conditions. However, the record of the two industries, when considered from the standpoint of peace or conflict as one measure of the success of collective bargaining, has been utterly different. In one instance, collective bargaining has produced unbroken peace, a minimum of hostility, and a maximum of cooperation. In the other industry where, for brief intervals, there has been the appearance of peace, conflict has always smoldered just below the surface. There has been an almost unbelievable record of illegal stoppages.

The two industries are the pulp and paper industry and the stevedoring industry. Both groups of employers began joint relations with the representatives of their employees in the summer of 1934. Each group acting through a coast wide association embracing practically all important employers has bargained with the union or unions representing its employees.

Workers in the pulp and paper industry are represented by two A.F. of L. unions: The International Brotherhood of Pulp, Sulphite and Paper Mill Workers and the International Brotherhood of Paper Makers. For all practical purposes there is no jurisdictional conflict between them. The two unions negotiate jointly with the Pacific Coast Association of Pulp and Paper Manufacturers in a meeting that usually is held annually. Occasionally two years intervene between such meetings.

With negligible exceptions all of the longshoremen on the Pacific Coast are represented by the International Longshoremen's and Warehousemen's Union (C.I.O.). In three small ports in the State of Washington longshoremen are represented by the International Longshoremen's Association (A.F. of L.). Although there is real jurisdictional rivalry between these two unions, it has only affected joint relations to a minor degree.

Since the two unions in the pulp and paper industry began bargaining collectively with their employers there has been but one stoppage—a jurisdictional strike called by a C.I.O. union at one mill in an effort to obtain recognition in the face of the existing contract with the A.F. of L. unions. The dispute was finally settled by the National Labor Relations Board, which affirmed the exclusive jurisdiction of the A.F. of L. unions for all the mills in the Association.

By way of contrast, the Pacific Coast waterfronts from 1934 to the strike of 1948 have been among the most troubled industrial areas in America. As a prelude to collective bargaining there was, in 1934, a coast-wide strike of longshoremen that eventually spread to men employed aboard vessels and terminated in the San Francisco general strike of that year. Since that time, there have been four stoppages involving all Pacific Coast ports and there have been well over a thousand stoppages—although these have sharply declined in recent years—some involving only a single vessel, some all the vessels of a single company, and some all of the operations in a single port. Each of the general stoppages occurred as a result of the inability of organized employers and workers to negotiate a new agreement. The balance of the interruptions, which averaged one every second day between 1934 and 1940 but have been less frequent since the end of the war, occurred in spite of the existence of a collective bargaining agreement that banned strikes, stoppages and lockouts.

### *Contrasts in Use of Arbitration*

In each industry the contract contained provisions for arbitration. Historically, there have been important differences in the course of arbitration. On the waterfronts at the expiration of contracts, matters in dis-

agreement have frequently been submitted to arbitration. By way of contrast contract changes have invariably been negotiated in the pulp and paper industry. In the latter industry but one dispute concerning contract interpretation has gone to arbitration, while on the waterfronts literally hundreds of matters have been the subject either of local or coast-wide arbitration. In many of these arbitrations its basic objective, namely, the resort to peaceful process rather than to economic strength, was completely distorted. Arbitration frequently became a means of resolving disputes which had already culminated in an illegal stoppage. In one instance it required a series of arbitrations covering essentially the same subject and extending over a period of many months before a strike at one port could be terminated.

In the pulp and paper industry there has been a small but notable increase in productivity, while on the waterfronts there has been a progressive, drastic and costly decline. As a result, the man-hours per ton of cargo handled is possibly twice as great as in 1934.[1]

Now if, in the industry marked by peace, workers had been favorably treated and if, in the industry plagued by conflict, workers had been exploited, these extraordinary differences would be readily understandable. Under such circumstances, for the second group to have resorted to economic means, even in violation of express contractual provisions, would have been anything but surprising, and, in fact, could have been predicted. But no such justification for contract violation can be advanced in the case of the longshoremen. Over the years and, particularly, since the end of the war, they have fared extremely well. Working at an occupation that is only semi-skilled, in which there is no apprenticeship, longshoremen on the Pacific Coast in 1947 had earnings among the highest in the United States. In San Francisco in 1947 regularly registered longshoremen in gangs earned, on the average, $4,084, or at the rate of $78.53 per week. Earnings in the other principal ports on the Pacific Coast were on a comparable basis. In the first eight months of 1948 weekly earnings averaged $69.39.[2] It is true that the earnings of longshoremen were substantially increased by overtime. However, these high earnings cannot all be attributed to this cause since the straight time hourly rate was $1.67. Finally, these were not the earnings of a few specially selected men, but were the average earnings of all men in gangs in the San Francisco Bay Area.

Since 1934 longshore hourly straight time rates, including the latest increase, have risen by 114 percent.[3] During this same period there has also been a substantial increase in earnings in the pulp and paper industry with average weekly earnings in 1947 in excess of $63.00—well above national averages.

Experience has proved that, in general, as a result of collective bargaining, radical and militant unions tend to become more conservative, and reactionary and antagonistic employers tend to become less so. But in the case of these two industries on the Pacific Coast, although the process of collective bargaining has been carried on over an identical period and although the maturity of the relationships between the parties could normally be expected to have produced the customary accommodation and understanding, this has only been true, except for the most recent developments in stevedoring, in the case of the pulp and paper industry. In order to account for this contrast it would appear that there must have been striking differences in the historical development of collective bargaining and, probably, basic differences in the nature of the two industries. What are these differences and what have they contributed to the record of peace in the one instance and of conflict in the other?

### *Collective Bargaining Atmosphere*

Although generalizations in the field of industrial relations are hazardous, a first approximation of a generalization will be attempted here: *The atmosphere and surroundings in which collective bargaining is first undertaken are a powerful determinant of future relationships.* Let us examine this as it applies to the two industries we are considering.

Before 1934 the pulp and paper industry had operated as an open shop. No effort was made to determine whether a worker belonged to a union. Many of the skilled craftsmen had come from unionized eastern mills. This group comprised an important element that had had experience under union organization. These men largely retained their union membership. The fact remains, however, that in only one small mill was there collective bargaining. There was no uniformity as to

[1] Because of a variety of conditions peculiar to the industry, the decline in longshore productivity is difficult to prove and is vigorously denied by leaders of the union. However, its existence is a matter of common knowledge and has been privately admitted to the writer by union leaders on more than one occasion.

[2] For various reasons, earnings since January 1, 1949 are down sharply. There is usually a seasonal decline at this time but this only accounts for a small part of the total. Part can be attributed to the disruption of schedules caused by the strike of late 1948, part to the diversion of cargoes during the strike to other than Pacific Coast ports and the failure to restore normal shipments to the Coast—again because schedules are not back on a normal basis. A small part can be attributed to the severe winter and its effect on westbound rail shipments.

[3] The present rates are $1.82 per hour straight time and $2.73 overtime.

wage scales or conditions as between the several mills. By 1934 the depression had seriously affected the industry. There had been some cutting of wages, some changes made in conditions that were adverse to the interests of the workers. The industry was operating under a National Industrial Recovery Act code.

It was in this atmosphere and under these conditions that officers of the two unions approached representative employers and asked to meet with them to explore the possibilities of establishing joint relations for the entire industry on the Pacific Coast. The employers accepted the proposal and shortly thereafter the first of the conferences that have marked the course of joint relations since that time was held. Eighteen primary mills out of some thirty-odd on the Coast were represented. Subsequently, the number of participating mills increased to thirty-three. The employers were in a preferred bargaining position. In spite of this advantage, the first contract represented important gains for the workers, and recognition of the two unions.

### *Open Shop on Waterfronts*

As in the case of the pulp and paper industry, Pacific Coast waterfronts were also operating, to all intents and purposes, on an open-shop basis. Waterfront employers were organized on a port basis. The union had been smashed in a coast-wide strike fifteen years before. All efforts to reestablish it in the interim had failed.

In a few ports, intolerable conditions of hiring prevailed. In some ports a comparatively small group of men obtained the bulk of the work, while the balance had to be satisfied with the opportunities that remained. In some ports there were hiring halls operated by the employers. Many longshoremen believed that there was favoritism in the assignment of jobs. Other serious abuses had developed over the years. Carriage of freight by water was tremendously reduced as a result of the depression. Since, in some of the large ports, there was no plan for taking new workers into the industry, men who had lost their positions during the depression turned to the waterfront for employment. In these ports the limited work that was available for the regular longshoreman was still further diluted by this influx of unemployed.

The nation-wide resurgence of unions under the National Industrial Recovery Act also affected longshoremen. Union organization was undertaken and most of the longshoremen joined newly formed locals. A conference of representatives from these locals was called for the purpose of preparing demands to be presented to employers.

Because of the abuses that existed and because of the effects of the depression, the demands of this conference were more radical than was the case in the pulp and paper industry. They included a minimum wage of $1.00 an hour, a basic six-hour day and thirty-hour week to spread employment. The union demanded hiring halls in every port under exclusive union control to spread employment uniformly. It asked that the intake of new employees to the industry be controlled. Finally, it demanded recognition, an agreement covering the entire Pacific Coast and a union shop.

As in the case of the pulp and paper industry, the employers met with the representatives of the union. But the chasm was too wide to be bridged. The employers were willing to accord limited recognition but rejected the demands for exclusive bargaining rights, a coast-wide agreement and a union shop. The industry had been free of a union for too long to make such proposals acceptable. They also rejected the six-hour day and the thirty-hour week. While they agreed that hiring halls should be established, they refused to grant union control. After many meetings and efforts of the government to effect a settlement, a coast-wide strike was called. This was followed by strikes of sea-going workers. All unions made it a condition of settlement that the demands of each must be satisfied before any of the men would return to work. There were bloody clashes between workers and police in which men were killed. Finally, a general strike was called in San Francisco. Shortly thereafter an agreement was reached to arbitrate all differences between employers and longshoremen by a board to be appointed by President Roosevelt. Other striking unions accepted generally similar conditions.

The relations of employers and longshoremen were from the very beginning colored by the antagonisms produced by this conflict and all that had preceded it.

### *Acceptance of the Agreement*

A second generalization will now be offered: *A collective bargaining agreement entered into directly between employers and employees meets with better acceptance than does an agreement written by an outside agency, such as an arbitration board.*

The results of the first effort at joint relations in the pulp and paper industry have already been indicated. The initial agreement was not all that the representatives of the union might well have hoped for, but they had been able to consummate an agreement, had established a uniform minimum wage and working conditions and secured union recognition. The agreement

had been a product of the collective thinking of the parties and, in spite of its failure to cover many customary provisions, the result was hailed by the presidents of the two unions as the most important single victory that their organizations had ever achieved.

By contrast, the waterfront employers and the longshoremen were unable to agree on anything. There had been no collective bargaining agreement for fifteen years. For all practical purposes, both wages and working conditions had been determined unilaterally by the employers. Since there had been no agreement, the entire basic document had to be written in the award of the President's National Longshoremen's Board. This award was a spectacular victory for the union. It covered all longshore operations on the Pacific Coast. The six-hour day and the thirty-hour week were both approved. A wage increase of 10 cents an hour was awarded instead of the 15 cents the union had asked for. A hiring hall in all ports was made a basic feature of the award. Most importantly, although the expenses of each hall were to be shared by the parties, the dispatcher, who was to be the administrative director of each hall, was to be selected by the union.

There was, however, a gap of two-and-a-half months between the end of the strike and the promulgation of the award. Presumably the conditions that had prevailed before the strike were to continue until the award was handed down. The men, harboring grudges that had accumulated over a decade and a half, were unwilling to continue to work under the conditions that had previously prevailed. On the other side, since there were no rules, employers felt that they were justified in continuing the methods they had employed in the past. The men, confident in the knowledge of their victory, refused longer to permit employers to call the tune. Employers operating as in the past found a new and militant spirit among the men that expressed itself in refusals to work under the conditions demanded. This was manifest on the day when the men returned to work and there began the first of the long record of "quickie" strikes that were to plague the industry for the next seven years. The men, mindful of their reduced earnings during the depression, were bitterly resentful at the catastrophic losses that the prolonged strike had produced. During the strike and afterwards union propaganda had depicted the employers in the most unfavorable light. The men were thus conditioned to antagonism and suspicion. There was a predisposition to hate that was enormously intensified as a result of the tragic conclusion to some of the conflicts between the strikers and the authorities.

### *Conditions Imposed From Outside*

Employers were faced with a revolution in the thinking of their men that necessitated a revolution in their own thinking. Such a transition is difficult under the most favorable conditions. It was particularly difficult for the waterfront employers since, for many of them, the problem of survival was a matter of supreme concern. Furthermore, they had had no part in determining the new conditions. These had been imposed by an outside agency, the arbitration board. They chafed under their defeat, which only became completely apparent when the terms of the award were announced.

In the case of the victorious union, the fact remained that the award omitted things the union considered vital, and established other conditions that were absolutely unacceptable to it. For example, there was a provision—never effective because of union opposition—that permitted the continued employment of nonunion men. Even though the union would not have been able to obtain some of the conditions it sought had it bargained directly, such a result would have been more acceptable than the conditions imposed by an outside agency. Similarly, in the case of the employers, even though they had finally found it necessary to concede in negotiation some of the features of the award that they found most objectionable, still it would have been a matter of their own choice, had they bargained directly.

Thus in contrast to the peaceful and agreed settlement that had marked the beginning of joint relations in pulp and paper, waterfront employers and waterfront workers started joint relations under a settlement in which neither had had a determining voice.

The fact that the strike had been marked with conflict and violence and that this, in turn, had made it possible for union leaders to instill in the minds of the workers feelings of bitter antagonism toward employers was also an important contributing factor in the history of their relations over the succeeding years.

This leads to a third generalization: *Industrial conflicts that are climaxed by violence, whether on the part of the authorities toward workers or on the part of workers toward other workers or toward the property of employers, produce a reaction that is carried forward through the years and makes more difficult the establishment of normal relations.*

### *Characteristics of an Industry*

A fourth generalization will now be considered: *The characteristics of an industry tend largely to determine the characteristics of its employees.* The more highly

skilled, the less hazardous, and the more stable an occupation, the more will workers who are attracted to such an industry be inclined to be stable and steady workmen, and conversely an industry inherently hazardous and unstable tends to attract unstable workers.

The nature of the two industries here under consideration differs widely. In the pulp and paper industry there is a high degree of mechanization. Plant investment per employee is extremely large. The mechanisms involved are highly intricate, extremely costly, and can only be operated by men of great skill and long experience. The demand for the products of the industry is relatively stable. The industrial process is one in which controls established through research and laboratory techniques determine the quality and character of the product. Because of the technical characteristics of many jobs and the long experience required to fill them, only workers of more than ordinary capacity can hope to advance. There is a close connection between supervision and supervised. While direct labor cost is important, other manufacturing costs are more important.

The sharpest contrast exists between these industry characteristics and those prevailing in stevedoring. In the latter case practically all of the direct cost is labor cost. The industry is subject to violent fluctuations in demand. The work of the longshoreman is a knack rather than a skill. Basically, his problem is to employ the minimum necessary expenditure of energy in carrying on very arduous work. Capital investment is comparatively inconsequential. It is a tradition of the industry that no one has to work unless he wants to. The industry is extremely hazardous even under the best of conditions.

### *Contrasting Two Types of Worker*

It is probably fair to say, therefore, that the pulp and paper industry tends to attract employees who are naturally stable, who are ambitious to advance along the industry's promotional ladder, and who are above average in basic intellectual capacity. These men are anything but soft and tractable, but the fact remains that they are essentially of the conservative worker type. Because many of them hold positions of great responsibility, they themselves are a responsible group.

The longshoreman is, in general, a different sort of worker. His job imposes no inherent responsibilities. He would be discontented and rebellious if required to work under the rigorous and controlled conditions that customarily prevail in industry. Since he is at liberty to work or not, and since the arrivals and departures of steamships fluctuate sharply, he is accustomed to no work at times. This casual character of his employment gives him a casual attitude. In most ports of the world the same gangs of longshoremen work for an employer, while the balance form a reserve labor supply whose employer is determined by the constantly changing demand. On the Pacific Coast, however, as a result of deliberate union policy, no man works steadily for any employer. This policy, inaugurated in 1939, was consciously designed to prevent workers from identifying themselves in any fashion with an employer for whom they otherwise might work steadily. It is exceptional in Pacific Coast ports for men to work for as long as ten days for the same employer because once the loading operations are completed they return to the hiring hall for re-dispatch, usually to another employer. Whatever tendency there may be to lack of responsibility is magnified by this unique employment relationship.

These factors combined tended to produce a more militant and radical attitude among longshore workers than is found in most occupational groups.

### *Characteristics of Management*

A fifth generalization will now be suggested, which is probably less valid than the others that have been offered: *The nature of an industry tends to determine the sources from which management is recruited and the attitudes of management are conditioned by the industry to which it is attached.*

We have seen that the diverse characteristics of the two industries affected the kind of workmen they attract and the attitudes of the workmen; there are equally sharp differences in the characteristics and the attitudes of the managements. The pulp and paper industry is in a highly technical manufacturing field. Success requires the customary skills of administration and executive control. Every step in the process is subject to rigorous chemical and physical tests. Accounting has been highly developed and adequate costing is an essential management tool. A diversity of operating problems requires the development of highly skilled specialists in second- and third-level managerial positions.

By way of contrast, the stevedoring contractor in a sense is not a businessman, but rather part businessman and part labor contractor possessing specialized knowledge in the field of vessel loading and discharging. He usually knows little of business administration as such. A substantial part of his success depends upon his ability to keep his labor costs at a minimum. His capital investment, considering the size of his labor bill, is nominal.

The stevedoring contractor is still motivated in his

thinking to a great extent by the older traditions of the sea. Immemorially, the steamship business has been a tough and hard-bitten one. Most steamship companies contract their stevedoring work. The steamship company is vitally interested in keeping its vessels at sea, since a vessel at the dock is earning no money. The cost of maintaining a vessel in idleness—and all time not at sea is considered as idle time—may run from a few hundred to several thousand dollars a day. Constant pressure is therefore exerted by the steamship company on the stevedoring contractor who, in turn, may attempt to press the longshoremen to speed up the work.

The contact of the longshoreman with his real employer, the steamship company, is practically nonexistent. His relationships, even with the stevedoring contractor, are casual at best. For the stevedoring contractor personnel administration is the refuge of soft men who don't know how to handle their employees.

***Improvement in Relations***

A sixth generalization will now be advanced: *Where collective bargaining is considered a mechanism for gradual betterment in the relations of the parties, improvement is almost certain to follow; where the approach is one of obtaining an expedient advantage, there is little likelihood of improvement in joint relations, and the chances are strongly in favor of their deterioration.*

One of the sharpest contrasts between these two industries has been in the atmosphere surrounding collective bargaining, including the negotiation of contracts and their interpretation. In both these processes, the relations between employers and unions in the pulp and paper industry have unique characteristics.

Since the inception of joint relations contract changes in this industry have been carried out by truly representative groups. Although actual bargaining is confined to a comparatively small number, all the discussion takes place in the presence of representatives of all mill managements and of every local union. The chairmanship of the bargaining committee is joint. Each local sends a delegation to the conference. These delegations are more than observers. They constitute, in effect, a joint convention of the duly elected representatives of the two unions, to the number of 150 or more. Similarly, each mill is represented by its management group. A number of companies send their presidents. Proposals for contract changes are determined at separate preconvention caucuses. These caucuses are reconvened whenever an impasse occurs during negotiations. All final decisions are reached with all delegations of both sides present and are thus hammered out before the representatives of those primarily affected.

With negligible exceptions there is a surprising amount of frankness and candor and a minimum of suspicion and distrust. The bargain driven may be a hard one, but if the employers refuse to accede to a specific demand, this is not charged to their greed or selfishness but is taken as one of the inevitable incidents of the bargaining process itself.

Inherent in this unique process is the opportunity it affords a large number of men on both sides to see the opposite group under these critical conditions.

The confidence that each side reposes in the other is also shown by the surprisingly small number of changes in the agreement. When specific suggestions for amendment have been offered, it frequently has happened that, rather than clutter up the agreement with accretions of new material, each joint chairman has set forth the position of his side for the record. These statements are incorporated verbatim in a published document that is considered quite as binding as though it had been incorporated in the agreement.

As we saw earlier, only one dispute has gone to arbitration and there have been only eight instances in which a dispute reached the last grievance step preceding arbitration. A procedure developed by the employers has probably been responsible for this unusual record. In order to provide uniform interpretation of the agreement, employers early established a special committee to which any mill manager could refer a disputed or doubtful point. The committee, after considering the facts, issued its interpretation, which was distributed to all mills. Originally, this unilateral interpretation was considered as confidential. Later the union requested that its more important officers receive copies. This was accepted by the employers. With few exceptions the unions have concurred in these interpretations. This exceptional situation can be attributed largely to the fact that the employers' committee has consisted of those who had an important part in drafting the original agreement, who know the intent of the provision under consideration, and issue the interpretation in the light of this knowledge. A substantial number of the interpretations have been adverse to a practice proposed or inaugurated by management. In no instance has a decision of this committee been rejected by a mill manager.

Nothing could be farther from these procedures than the conditions that have prevailed in the negotiation and interpretation of longshore contracts. Here the ne-

gotiations have been conducted by a small group of professionals. The representative caucuses, which are so important a feature of the pulp and paper conferences, cannot be reproduced under the method of collective bargaining that has been employed in the stevedoring industry.

The mutual distrust and suspicion which for so long marked all joint relations in this industry were carried over and intensified at all joint meetings. Dealing was not just at arm's length; it was between bitter adversaries each of whom was completely distrustful of those who faced him across the bargaining table.

Consequently, when a dispute arose, disagreement had been the rule at each preliminary step of the grievance procedure. This has accounted for the mass of disputes that have finally had to be arbitrated. An additional element that tended to prevent healing of the breach has been the fact that, in some cases submitted to arbitration, the union made an attempt to expand the submission to cover extraneous matters. For example, when an unsuccessful effort had been made to negotiate uniform working rules for all coast ports, the union attempted to get the arbitrator to expand the arbitration to include a guaranteed annual wage and vacations with pay.

Nor were the relations between the parties improved by the fact that the union, through economic means and through its control of the dispatching hall, was able to impose conditions that were covered neither by the contract nor by past practices.

It cannot be assumed from what has been said that all of the suspicion and distrust can be blamed on the union. The history of malpractice extending over many years before 1934 left an ineradicable deposit in the minds of leaders and longshoremen. It is also true that among more than two hundred employers in more than thirty ports there have been those who have attempted to take advantage of the men. The fact remains, however, that final economic power was transferred from the employers to the union and that the union was customarily the aggressor. Since the basic philosophy of most of the union leaders was one of absolute non-collaboration, the effects of an excess of power on one side and the exercise of that power not infrequently in arbitrary fashion tended to make the path of joint relations much rougher than it otherwise would have been.

### *Differences in Economic Belief*

A final generalization will now be offered: *Where employers and union representatives hold irreconcilable differences in economic belief, where the union representatives have been thoroughly indoctrinated with left-wing philosophy and this philosophy is also the touchstone of union action, hope for enduring industrial peace is illusory and conflict, whether open and obvious or concealed and furtive, pervades and dominates the employer-employee relationship.*

Officers of the Longshoremen's Union assumed from 1934 to the end of the 1948 strike that the purpose of collective bargaining was not to establish a system of industrial jurisprudence but rather to serve as a device under the cloak of which unremitting, if undeclared, warfare could be carried on. Any procedure, no matter how devious, is considered legitimate under conditions of war. The union's representatives looked on the employers, not as a necessary component in a joint industrial effort, but as an inescapable evil. Cooperation and collaboration were to them unthinkable and basically undesirable. Consequently, the written word was to be scrutinized in order to torture its plain intent to the advantage of the union. This is the invariable approach of the ideological unionist.

The employers were not free of ideological prejudices. In their case the ideologies were precisely the opposite of those held by the officers of the union. Employers accepted the necessity of dealing with the union after the strike of 1934 with real reservations. Had the union leadership adopted a traditional business union policy, it seems likely that employer antagonisms would have been reduced to a minimum. However, injection by the union of ideological concepts into the area of collective bargaining tended to inflame and exacerbate whatever latent employer hostility existed so that now employers were likely to be as unyielding in their views as the union's representatives and as basically antagonistic, suspicious and hostile in their approach. Since they were continually faced with guile they resorted to guile. Since they met equivocation they too equivocated. Since the objectives of proposals made by the union were all too frequently something quite other than what appeared on their face employers offered proposals with hidden objectives. However, the employers would always have welcomed some sort of genuine collaboration. They would always have preferred the ordinary give-and-take of the bargaining table for the elaborate hocus-pocus that was the outstanding feature of joint relations from 1934 to 1948. In short, their position was induced and conditioned rather than fundamental.

An example of the tactics employed by the union may make clear the methods they employed for so long. When the Federal Mediation and Conciliation Service

reported to President Truman that a strike in June 1948 was certain, the President invoked the provisions of the Taft-Hartley Act and appointed a fact-finding board. On receipt of the Board's report, the President directed the Attorney General to apply for an injunction. Following the issuance of a temporary restraining order, officers of the union called an open-air mass meeting of longshoremen on the San Francisco waterfront. The men were instructed to observe the terms of the injunction to continue at work, but they were advised that the proper response to make to the injunction was either to slow down or to refuse to work because of presumed unsafe conditions. The men were asked to "read between the lines" of the prepared statement and were told that the injunction "didn't say you couldn't work slower." There was no material change in productivity until the injunction had been made permanent. Then, in a number of ports, according to allegations of the employers that seemed to be amply justified, there were reductions in efficiency that, in some instances, were reported to amount to a rate of output approximately one-third of what had previously prevailed.

These were no new devices. Allegations as to unsafe conditions have frequently been invoked as a means of striking an employer by indirection. The slowdown has also been used on many occasions as a response to some dispute. This retaliatory slowdown is what might be called the slowdown on the slowdown. Something has already been said concerning the reduction in output over the years. This has merely been one of the manifestations of the power of the union. It is slowdowns over and beyond this that have been employed as a means of retaliation.

### *Difficulty of Discipline*

It may be asked why disciplinary action was not taken in an effort to restore some semblance of control over the work. The answer is that it was a practical impossibility to impose effective discipline anywhere in the industry. Because the union had complete control of the hiring halls through its selection of dispatchers, if an effort was made to impose discipline by laying off an individual or a gang, the men involved merely returned to the hall and were sent out as soon as the rotational system made them again eligible for dispatch. They might even be dispatched to the same employer who had discharged them. The grievance machinery was totally inadequate to meet such situations. The number of instances in which effective discipline was imposed was only a fraction of the cases in which it was attempted. Even in the case of pilfering the union officers apparently viewed such acts more as escapades than as offenses.

The top ranking officers of the union over the years charged that every act of the employers was intended to destroy the union. This was not the mere expression and reiteration of a point of view that is frequently resorted to by other unions for propaganda purposes. Propaganda was undoubtedly one of its objectives but, in the case of the Longshoremen's Union, it had its origin in something more fundamental and deep-seated. The top officers of the union can definitely be typed as belonging to the left wing of the labor movement. They believe in the reality of the class conflict. All employers are to them the implacable enemies of the workers and, consequently, all employers secretly and continually are conspiring to bring about the destruction of the labor movement. This premise of class conflict once accepted, it naturally follows that every action of the employers must, by the law of economic determinism, be directed toward smashing the union. While left-wing officers of some other unions may hold similar views, some of them effectively divorce their economic beliefs from their union activity so that, in the latter, they are hardly to be distinguished from business unionists. From 1934 to 1948 this was not true of the officers of the Longshoremen's Union.

Although the Supreme Court held that it had not been proved that Harry Bridges, President of the union, was a member of the Communist party subject to deportation as an alien, other officers of the union have at one time or another either publicly admitted their Communist affiliation or have been so characterized by fellow officers. The organization, during the period before the German attack on Russia, had for its slogan, "The Yanks Aren't Coming." Officers of the union in 1940 opposed the re-election of President Roosevelt on the grounds that he was a warmonger. Before the German Army swept eastward into Russia, it was "an imperialist war," but after June 21, 1941, it was "a people's war." The union was demanding the opening of the second front even before American Marines landed on Guadalcanal. With the conclusion of hostilities, there was again a reversal in position. Hardly had Japan surrendered when the union was demanding the return of American troops from China. Its official position has been in opposition to aid to Greece, to the Marshall Plan and to American proposals for the control of atomic energy. It has publicly expressed its support for an international movement of collaboration among all maritime workers. Its delegates at C.I.O.

conventions have opposed action by that organization directed against left-wing union leaders.

***Union's Non-Waterfront Relations***

When the union is considered as a whole, however, there are certain anomalies in its relation to employers that in some ways are difficult to explain in the light of the preceding facts. After 1934 Pacific Coast longshoremen were organized as a district of the International Longshoremen's Association (A.F. of L.). With the establishment of the C.I.O., the union affiliated with the newly organized national federation and began to enlarge its jurisdiction. For a number of years it embraced only longshoremen and warehousemen but, in recent years, particularly in the Hawaiian Islands, it has extended its jurisdiction so that its membership now includes plantation workers in pineapple and sugar, and a number of other occupational groups totally divorced from the waterfront.

In these non-waterfront locals the relations of union and employers have not been importantly different from that customary in business unions. However, in most of these non-waterfront locals it is probably fair to say that many of the leaders hold the same ideological views as the top officers. In addition these top officers not infrequently participate in these negotiations. Why then this difference in approach? In each instance the differences seem to bear out all but the last of the generalizations previously made. Yet even as to this one a plausible explanation can be advanced: the reason that ideological concepts were only carried over into the area of collective bargaining on the waterfront can be attributed to the fact that the other industries having agreements with the union do not intimately touch transportation and, consequently, do not occupy the same strategic position in left wing union philosophy as does the transportation industry. The fact that the same type of conflict that is so marked a feature of employer-longshoreman relations is largely paralleled in the relations between employers and marine cooks and stewards—who belong to another union dominated by left wing leadership—but is absent in the other maritime unions, lends support to this suggestion.

Whatever the true explanation is there can be no doubt that the economic views which for so long permeated the organization had a profound effect on longshore labor relations. There have been many occasions when it has been all too apparent that the entire hierarchy of international officers and many of those holding local office have been imbued with the doctrine that any means was warranted so long as the end objective would be attained. Equally basic over the years has been the fact that, as already indicated, the top union officers have consistently denied that there was any common area of interest between employer and employed.

For those who hold such opinions and who consistently carry them over into the area of joint relations, a collective bargaining agreement is not an obligation whose terms are to be scrupulously observed, but rather evidence of an armistice designed at best to assure a precarious peace that may at any time flare up into open conflict. Union officers holding such beliefs are indifferent to continuity of operations. They take the position that the contract should not stand as a bar to direct economic action, if such action will enhance the union's prestige or promote some new objective, possibly unrelated to the economic area in which the members of the union are employed. Employers, by contrast, operate under the doctrine, essential to all business dealings, that a contract is an obligation until it is mutually altered or cancelled. These divergences in approach from 1934 to 1948 have been implicit on Pacific Coast waterfronts. The chasm that was thus created was for fourteen years so wide and so deep that, even though a bridge might temporarily be thrown across it, the structure itself was so flimsy that it was likely to collapse under the smallest additional loading, or with every wind of disagreement. It is a source of real encouragement that the historical differences that have operated in the past may now, for the first time, be replaced by a more sober and realistic approach.

***Management's two-way system of communication—order-giving from the top down and report-making from the bottom up—while admirable in theory is hampered in practice by restrictions on the functions of line officials, by the tendency of junior executives to stress only their successful results, and by the inability of executives to get complete cooperation. A single, two-way communication process, moreover, is slow and unresponsive. Order-giving and report-making should be considered as separate, though mutually dependent, processes, each one of them carried on as a two-way activity.***

# Making Two-Way Communication Effective

By PAUL PIGORS

I HAVE no simple formula, no neatly packaged program for solving all communication problems. As a matter of fact I am certain that there is no such system; we only waste our time if we try to find it.

If there were any such thing, management would have found it long ago. Actually the system that management has devised for technical communication is the nearest thing to it. That system is far more intricate, accurate and logical than anything a mere teacher like me could dream up. But even that system, marvelous as it is, does not always work perfectly. As a member of management, you are far more keenly aware of that than I am.

I submit that the fundamental reason why a technical communication system never does work out in practice exactly as it should in theory is that effective communication is never purely technical. In other words, objective facts never make up the whole story. And yet a technical communication system has no place for anything but that sort of fact.

This significant limitation of the technical communication system in industry is only one of several. All of them are important. Yet each is so obvious that it has so far failed to appeal to most of those who design and operate the technical communication system in industry. Before examining the plan and function of this system, let us briefly note five obvious points that go far to determine the success or failure of all communication, everywhere.

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1. *To reach the individual is your aim.*

In the first place, communication, when it gets anywhere at all, reaches the *mind of an individual.* This challenge is often ignored by all of us, even in face-to-face conversation. But it constitutes a particularly severe handicap for any form of communication that is both written and standardized. We shall look into this more carefully later on. For the moment, it is enough to recognize that, since each human being is to some extent unique, communication with him can be effective only insofar as it makes sense and is acceptable in terms of *his* background and experience.

In thus trying to meet an individual on his own ground, so to speak, we must first answer three questions: What is he? Where is he? Who is he? The first two are easier than the third. Every member of an enterprise has a function. This tells us, organizationally, what he is. It also determines, to some extent, his scale of view, that is the organizational knowledge that he can bring to bear on what is communicated to him. His status, high, intermediate or low, tells us where he

is. We thus know what is his angle of view. Is he in a position to see the over-all picture? Is his vision limited by ignorance of general policies and coordinated activities? Or is his usual slant the worm's eye view?

When we know what and where the individual is, we already know a good deal about him. But his unique point of view is one that we can never exactly duplicate because we can never wholly answer about any individual the final question: Who is he as a person? But the mere fact that we ask it, and show an interest is of value, both to him and to us. Most people, in a friendly relationship, are glad to give us all the relevant information that can be transmitted on this point. And as we listen and observe we pick up valuable clues on the important and related question: What speaks in this person besides my words and acts? We delude ourselves if we suppose that we are ever soloists when we try to communicate with another person. Unless we know that our message may seem to him discordant, we may find ourselves wholly baffled when, instead of accepting at its face value what we have to say or do, he seems to feel instead that he must probe for hidden meanings or fight us off.

2. *Communication is a joint activity.*

When communication is seen as a translation of meaning between individuals, we immediately recognize that it must be a *joint process*. When one speaks (or writes), the other must try to understand if there is to be any reasonable prospect of successfully achieving a meeting of minds. To capitalize on this insight we must not only *know* it but also *show* it. Talk that gets somewhere not only goes out from the speaker but reaches another mind and comes back enriched by the character of the listener's response. If we are interested, not merely in making a noise, but in increasing mutual understanding and winning assent, we must show that we are interested in this response from the other person. It is fatal to entertain or to show indifference to what he thinks and feels about the subject in which we claim his active participation. Yet, without anyone's having intended it, this is precisely what a technical communication usually does communicate to everyone at and below the level of foreman. There would be far less misunderstanding and antagonism than there now are in industry if some provision were made promptly to test and to evaluate the response of every organizational member. Those at the top cannot afford to forget that to every communication, when it reaches the individual at all, there always is some kind of immediate response in feeling, even if not in words. (If the quality of communication is to be raised in any given relationship, this immediate response should be used as a guide for the future, in that relationship. Because this is so easy to do in face-to-face association, this type of contact is most fruitful for increasing understanding.)

3. *Actions speak louder than words.*

As a joint activity between individuals, communication is much more than talk and writing. Behavior is of even more importance in building the relationship that serves as a basis for all verbal communication, oral or written. The nature of this relationship depends primarily on whether it is founded on confidence or mistrust. And these, in turn, develop according to our interpretation of action, or inaction, on the part of others. Is this person motivated by good will, or does he constitute a threat? In trying to answer such a question most of us are, wisely, guided far more *by what he does than by what he says*. This is what we mean when we say, "Actions speak louder than words." And yet we overlook this fact when we assume that our own good will must necessarily be obvious to others, even when it is not demonstrated in action. And we also tend to forget that when any system carries with it implied threats (as a technical control and report system necessarily does) it sets up barriers that need to be overcome in other ways if sound relationships are to be maintained.

4. *Feelings color or distort objective facts.*

By implication, we have already indicated that feeling is an all-important element in communication. It is because feeling is such a constant and strong element in meaning that action, or inaction, is so important. It speaks directly to feelings (the springs of action) in all of us. The behavior of others that is encountered by a person most immediately and strongly answers the question that is normally in the back of everyone's mind in a new situation or relationship: What will this mean for me? If the new situation forwards his interest and is compatible with his central purposes, he will be glad to participate. If, on the other hand, he senses any threat, he will probably remain alert to counter the imagined danger. He will be on the defensive, telling as little as possible and trying to protect himself at all costs. Few top executives realize, or would even believe, that many communication failures are owing to this attitude at lower levels of management and among workers. The technical communication system presumably was not designed to hurt or frighten anyone. But when it is operated so that this is what happens, those

who permit it are asking for trouble. And they seldom ask in vain.

5. *Communication is a continuing process.*

This joint activity of communication between individuals, where behavior counts for so much because it determines feelings, is a *continuing process.* This latter fact is often overlooked, although it constitutes a heavy responsibility for everyone in authority.

Communication is a continuing process in two ways. For one thing, it is going on all the time in every organization and in every relationship from the top down. (The more is the pity that the return trip is, comparatively speaking, so seldom completed.) Bossy people are apt to assume that communication can be switched on and off, like their own activity on the dictaphone. Actually, all those in subordinate positions are making observations and drawing their own conclusions all the time. And in this constant process of interpretation down the line what is not said and what is not done may be even more important than official words and action. Certainly from the point of view of the worker, what the foreman does or fails to do in daily work life is far more important than what the president says at the annual banquet.

Second, communication is not only going on, in general, all the time, throughout the whole organization; it is also a continuing process within each individual and group relationship. These relationships are constantly growing better or worse. And communication is one of the most important factors in determining whether the tide of understanding is ebbing or flowing. This also constitutes a special responsibility for those in authority, because each episodic communication is important for the future, as well as for the current situation. Even more important, in the long run, than what happens now is the cumulative effect of what is said and done. To the ever-lengthening chain of understanding, or misunderstanding, what has been added by this order, this action, this report or this silence?

Bearing in mind these five simple points that concern all communication, everywhere, let us now examine the technical communication system in industry. How is it designed? What are its typical limitations? How does it work? And, how might it be made to work better?

### *The Theory: A Two-Way System of Orders and Reports*

Under the direction of top management, a beautifully logical communication system has been devised. Its aim is to enable line management, from the top down, to direct and check activity throughout the organization. Starting with a general plan and broad directives, some part of authority and responsibility for operational results is delegated at each successive level of line management. The authority is expressed in orders for appropriate kinds of action at each level. All orders are supposed to tie in (1) with the chief executive's general plan for what he wants to achieve and (2) with the implementing standards, quotas and other controls recommended by the various staff departments. Middle management breaks down general directives into more specific orders for first-line supervisors. These orders tell each foreman what he is to do. They thus direct his activity in relation to the workers who report to him.

But technical controls do not stop here. They include mechanisms for check-up. These are designed to enable representatives of line management to keep their fingers on the production system and to see at all times how well it works. Inspection, production control and cost accounting, for example, form the basis for statistical reports and for evaluations that are sent to the chiefs of technical departments and to representatives of middle and higher line management. From such reports the efficiency of current operations can be compared with past accomplishment, and with the theoretical standards that have been set. For top management, these reports are finally summarized in terms of cost. Thus, the "two-way" system of technical communication begins with general orders and ends with general reports.

Much as there is to admire in this system, no one is more keenly aware than those who work with it that the system has its shortcomings. These are mainly of two kinds: (1) those resulting from the *organizational structure* that it is designed to serve, and (2) *inherent limitations* in the conception of the technical communication system.

1. *Organizational limitations in the theory.*

Any system of control from the top necessarily *restricts* those upon whom it is imposed. This is generally appreciated as being true at the work level. But we should recognize that the restrictions begin to be felt even at the level of middle management and of the technical chiefs. For purposes of illustration, three kinds of *organizational limits* may briefly be described:

a. Restrictions imposed on line and staff officials by their assigned area of responsibility (functional restrictions).

b. Competition for appropriations within over-all budget limits (financial limitations).
c. Difficulty of obtaining cooperation to meet responsibilities (cooperational limits).

a. *Functional restrictions.* Each administrator of a sub-division, whether the head of an operating division or the chief of a staff unit, is inevitably limited in scope because he has already been told both where and how he is to function. To prevent duplication of effort and interference between people who by selection and circumstances are highly aggressive, the area of activity must be sharply defined for each. But in determining how he is to operate, an administrator needs considerable leeway to make decisions. He has discretion in deciding how general orders shall be broken down, or how specific control systems are to be set up.

Both these features of the administrator's functional assignment—what he is—largely determine the content and timing of technical communications that go to and from him. Thus his function both sharpens his focus and limits his scale of view. Each administrator vividly appreciates the reasons for and the urgency of his departmental requirements. Unless he has an exceptionally unbiased mind, he is almost certain to feel less keenly the urgency of requirements outside the scope of his function. When conflicts arise between line and service departments, such a blind spot may make an official genuinely wonder what other functionaries can be doing to justify their position and salary.

b. *Financial limitations.* A related and even more restrictive pressure is felt when the annual budget is being made up. Ambitious junior executives compete for priority in getting top management support. Each department head tends to think that his group should have the biggest slice of the budget. Each technical group naturally feels that its contribution is the most important. But these feelings are logically irrelevant in matters such as allocation of funds and approval to go ahead with departmental projects. Such questions must be decided at the top level by policy thinking. However, to the degree that feelings lead to action and get results they indirectly affect top management decisions. Aware of this, each administrator tends to look to the top, where he knows that the authority to make decisions resides. And *he concentrates on sending upward communications that shall weight these decisions in his favor.* This natural motive determines, insofar as he is able to choose, what he says and what he does not say. For example, he selects as the subject of reports those circumstances that show how important his function is and how well he fulfills it. He stresses successful results. As far as possible, he suppresses communication of unfavorable occurrences and of unsolved problems. He does all he can to strengthen his personal relationship with top executives. But in thus keeping his eye turned to top management, he tends to overlook many opportunities to increase understanding, good will and cooperative action from his colleagues and subordinates. This lack of positive effort to build understanding through informal communication with them widens the gap that inevitably exists between individuals and groups of different function and status. It is ironic that this failure to make the most of daily work relations with his immediate associates is so apt to thwart him in his desire to make a good impression on the chief. Furthermore, if he is the unfortunate type who, in his reports to higher management, blames his colleagues or assistants for his unsolved problems, he gives ground for such serious mistrust that we cannot even count on his routine cooperation. He may even arouse such active resistance that his official relationships deteriorate into personal feuds. Such a situation is the more hopeless when the ambitious administrator does not recognize that he himself is the source of the trouble. It easily happens that his eye is directed so constantly to the top that he is unaware of the offense given his associates. He may even fancy himself the innocent victim of organizational intrigue.

c. *Cooperational limits.* Without full cooperation from colleagues and subordinates, no administrator can entirely succeed in accomplishing what he is supposed to do. Yet, *chief among the unsolved problems that an administrator hesitates to communicate upward is his inability to get cooperation.* It is a recognized weakness not to be able to get on with people. It takes courage, or foolhardiness, to admit this as a personal handicap. As we saw before, such flaws in themselves are often not even clearly recognized by administrators who are primarily trained in abstract ways of thinking. From the logical viewpoint the organizational arrangements ought to work. But oddly enough they never absolutely do.

In spite of these three kinds of restriction, a representative of middle management more typically sets limitations than he is confined by them. This is illustrated by his participation in the technical communication system. He operates within the scope of general directives but he gives specific orders. His work is periodically reviewed by top executives. But he plans report procedures. And he makes reports more often than he is made the subject of reports. Obviously, the organiza-

tional restrictions become more confining at successively lower levels. Indeed, foremen frequently find themselves so isolated from the main stream of general management information that they do not consider themselves members of management.

For example, the orders typically given to a foreman allow him little discretion. In effect they say to him: "You are responsible for getting your work group to produce, in this quantity, by these methods, according to this timetable, for this cost, and to these specifications for quality." Thus directed, the foreman gives even more detailed work orders to his men.

The uncomfortable limitations of the foreman's position are clearly reflected in organizational procedures that define what he can and cannot properly say, and to whom.

To fulfill his responsibilities, the foreman, no less than the administrator, needs understanding and support from the top. But organizational procedure denies him direct access to top executives. He may be so fortunate as to have good working relationships with his immediate superior. If so, he can express himself freely at that point. But more often his boss is so preoccupied with his own problems that he has little time or energy to think about the foreman's difficulties. Under these circumstances, the chances are practically negligible that a foreman can express his worries or ideas through regular line channels.

These limitations are imposed by the special requirements of *organizational structure*. Given these requirements, the possibilities for two-way communication are far from ideal. A second set of limitations is imposed by the characteristics and flaws in the design of the technical communication system itself.

2. *Inherent limitations in the theory.*

The highly formalized character of the technical order and report system has already been shown in describing what it was designed to do. But in this design there are some unnecessary limitations. These arise from two important points at which the theory does not conform to opportunities offered by the facts of human relations within an organization.

First, conceived as a single two-way process going all the way from the top to the bottom and back again, communication is unnecessarily slow. There is little opportunity for preventative readjustments as prompted by immediate response. Flaws in operational practices, delays and failures through misunderstanding are eventually brought to light. But even so, on account of the abstract nature of report data, direct insight into the difficulty is not revealed. Often, lengthy investigation is needed to put the finger on specific causes.

Second, it is a false assumption that effective control consists primarily in providing *external incentives*. There is food for thought in the fact that while workers (like the rest of us) always want more money, management systems that provide for incentive earnings have, on the whole, been remarkably ineffective.

Even more untenable is the assumption that effective control can be brought about by *external constraints*. It is worth noting that every non-productive external system of constraint adds to overhead and interferes with the normal give-and-take of free communication on which spontaneous cooperation depends.

### *Possibilities of Improvement*

As we study the actual operation of technical communication, we find that, both for better and for worse, it differs markedly from the theory. One great improvement in practice is that order-giving and reporting are considered as *separate, though interdependent,* processes. Each is at its best when it is carried out as a two-way activity.[1] And the better the practice, the more frequent are the trips back and forth. Experience also shows that, in the best practice, external incentives and controls are used merely to supplement and to stimulate what has already been begun by self-motivation and carried further by self-control. Thus the best practice, in spite of the theory, takes full advantage of actual opportunities for participation. Unfortunately, unless top management formally consents to experiment with management-labor cooperation, this can be done only informally by the exceptional individuals who break through organizational theory. They succeed more in spite of the system than because of it.

[1] Pigors, Paul and Faith, *Understanding as a Condition for Success in Order-Giving;* Prepared by Industrial Relations Associates, Inc. Cambridge, Mass., 1945.

***A union officer outlines the conditions essential for effective collective bargaining, together with the policies and procedures that should be followed by both management and labor in negotiating the contract and living under the agreement.***

# A Collective Bargaining Check-List

By ARNOLD F. CAMPO

*This outline was compiled with no thought of publication, on the author's part. It was designed for use in several sessions of an evening class which Arnold Campo, despite the burdens of his regular work as a union official, finds time to conduct on occasion for the University of San Francisco. A copy of it came to our attention, and we asked Mr. Campo for permission to issue his outline as one of our Division's series of Industrial Relations Papers. He graciously consented, with a modest disclaimer of any profundity in the whole, or of originality in its items.*

*Many persons would affirm that neither profundity nor originality are so vital as sincerity and constructive purpose, in the negotiation and administration of a trade agreement. Certainly, old truths need to be emphasized; and a new grouping of well-established precepts may carry new emphasis. Mr. Campo has performed such a service here, and we believe that his outline will serve a good purpose and will be valued by those who sit around collective bargaining tables, and by those who live with contracts thus formulated.*

JOHN P. TROXELL

* * *

### *Conditions Essential for Effective Collective Bargaining*

*For both union and management:*

1. Collective bargaining should be made an educational as well as a bargaining process. It should afford union leaders an opportunity to present to management the wants, desires, grievances and attitudes of its employees and enable management to explain to union leaders and, through them, their employees the problems and economic forces that confront it.
2. Management and the union must conceive of collective bargaining as a means to find the best possible solution, not as a means of acquiring as much as one can while conceding the minimum. There must be an honest attempt to solve rather than to compromise.
3. Both parties must have enough bargaining power to command respect and to enforce the terms of the contract.
4. There must be mutual confidence, good faith and a desire to make collective bargaining work.
5. Honest, able and responsible leadership is necessary.
6. Parties must meticulously observe the national and state laws applicable to collective bargaining.
7. It is important that both parties realize that collective bargaining in a sense is a form of price-fixing and that successful collective bargaining in the last analysis depends on whether the union and management do a good job at keeping the price of labor properly adjusted to other prices.

*For management:*

1. Management must develop and consistently follow a realistic labor policy which should be accepted and carried out by all its representatives.
2. Because the union must feel that its existence is secure, management must grant recognition to union without reservations and accept it as a constructive force in the industry.
3. Management should not assume uninterrupted continuance of employee good will. It should periodically examine the rules and regulations—including those that supervisors use and enforce—by which the labor force

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*Arnold F. Campo is Representative for District 38 of the United Steelworkers of America. John P. Troxell, Director of the Division of Industrial Relations at the Stanford University Graduate School of Business, wrote the introduction to this article when it was originally published by his office, in January 1949. The article and introduction are reproduced here by permission.*

is governed. These determine the attitudes, comfort and good will of employees.
4. Management should act upon the assumption that to make the union a responsible and conservative body it is necessary to treat it fairly and to establish such a satisfactory business relationship with its representatives that they and the union members will not lightly jeopardize that relationship.
5. Management should not wait for the union to raise grievances but should make every reasonable effort to prevent them from arising and to remove them promptly when they arise.
6. For any bargaining unit, management should deal with only one union, but where two unions seek recognition, no negotiations should be undertaken until one union establishes a majority.
7. In weighing the economic implications of collective bargaining, management should give more emphasis to social considerations.

*For union:*
1. In the light of the rights granted to organized labor in recent years, it is incumbent upon each union to eliminate racketeering and other undemocratic practices within its own organization.
2. Union leaders must understand the economic implications of collective bargaining and realize that union demands must be met from the income and resources of the industry.
3. Union leaders should not conceive of their function as merely to obtain higher wages, shorter hours and better working conditions for their members. They and their members have an obligation to assist in eliminating waste and in improving the quantity and quality of production.
4. Union leaders have an obligation to remove restrictive rules and regulations on the part of union members since they increase costs and prices, reduce the amount that can be paid out as wages, tend to make for less employment, and in the long run lower the standard of living of all groups in society.
5. Unions should resort to strikes only when all other methods have failed to bring about a satisfactory settlement of the issue or issues involved.

### *Policies and Procedures to Be Followed in Negotiating the Contract*

*For both union and management:*
1. Be friendly in negotiation. Introduce everybody. Relieve any existing tension.
2. Be willing to listen. It is time enough to worry about how you will say "No" *after* you have heard the facts.
3. Give everyone an opportunity to state his position. This often discloses the real champion of the problem or grievance.
4. Know something about the personal history of the other party's representatives.
5. Always keep in mind the right and fair thing to do.
6. Both parties should strive to maintain an objective attitude. They should think rather than feel their way through the problem under consideration.
7. Don't attempt to guide the discussion along a straight line directed to solving the problem. Let it wander at times; don't hurry it.
8. Don't let negotiations reach a stalemate. Help to define the problem and to suggest the solution. Ultimatums are out of place in negotiations.
9. If facts disclose a need for doing more than solving the immediate problem, be willing to go as far as is justified.
10. Define each issue clearly and discuss it in the light of all available facts.
11. Avoid specific regulations and minute details in the contract to insure greater flexibility.
12. At all times search only for the correct and real solution.
13. Size of the conference should be kept as small as circumstances will permit. Small groups facilitate successful negotiations.
14. Avoid sharp practices.
15. Consideration should be given to fatigue and mental attitude in determining the length of the session.
16. Have a committee of employees present during the negotiations; it can be highly advantageous and is practical in case the bargaining unit is a single establishment.
17. Terms agreed upon should be in writing and parties should sign without mental reservations. Phrasing of contract should be realistic, not legalistic.
18. Arbitration in the making of agreements should be used only as a last resort.
19. Both parties should respect the rights of the public at all times.

*For management:*
1. At the outset, management must make sure that the labor leaders are really the representatives of the workers in the bargaining unit.
2. Don't use lawyers as negotiators unless they have an intimate knowledge of industrial relations.
3. Don't limit contacts with the union to controversial subjects, but consider also matters of common interest.

4. Minor concessions that serve "face-saving" purposes should be granted by management.
5. Ridiculous demands should be tactfully sidetracked rather than ridiculed.
6. Management should inform labor and union representatives about the factors and conditions that determine employer policies.
7. Management should not refuse employees' demands until ample consideration has been given them.
8. Use any opportunities to:
   a. Educate the committee;
   b. Help disclose bias or prejudice;
   c. Show how established company policies make actions necessary;
   d. Iron out any unrelated or related grievances that may come to light.
9. Be friends as negotiations end. Don't shut the door on further consideration of the problem. Show willingness to listen to new facts when and if developed.
10. When a demand has to be rejected management should give the union representatives all the facts and help them to place management's views before the workers.
11. Management must take a broad viewpoint. It should help the union to analyze their demands and to determine their fairness and propriety.
12. Make sure the negotiating committee is agreed on the fairness of the solution of the problem, and that they have sufficient facts to show their constituents that the solution is a fair one.

*For union:*
1. Union leaders should not bring conflicting social theories into the negotiating procedure.

### *Policies and Procedures to Be Used in Living Under the Agreement*

*For both union and management:*
1. Both sides should make a genuine effort to make the machinery for collective bargaining function. This requires a tolerant attitude, a spirit of accommodation, good will and a willingness to cooperate.
2. The channels for handling grievances must be observed. It is considered good practice to:
   a. Instruct everyone as to its workings;
   b. Handle all grievances promptly;
   c. Put grievances in writing and indicate the facts on which both parties agree;
   d. Hold meetings of grievance committees on company time;
   e. See that supervisors and foremen are not short-circuited; to do so destroys morale;
   f. Avoid cluttering the grievance procedure with matters that are not really grievances.
3. When conferences over grievances reach an impasse the matter should be submitted to arbitration. Arbitrators should be selected with care.
4. Both parties should make sure that every commitment is scrupulously fulfilled. The use of a rigid follow-up guarantee observance is recommended.

*For management:*
1. Management should be available for conferences with workers' representatives so that it may be kept aware of changing attitudes and problems of employees.
2. Management must see that the foremen and supervisors understand and carry out the terms of the agreement.
3. Management should not shortcircuit union representatives or undermine the union's authority. Any policies or proposed programs involving the workers should be taken up with union representatives before they are made effective.
4. Management should give unions credit for the accomplishment whenever circumstances permit.
5. Management should avoid paternalism and strive to treat union representatives and their employees as equals.
6. Many of the restrictive practices and what appear to be unreasonable demands of the union will disappear if management will strive to give its employees regular employment.
7. Management should maintain adequate employee records.

*For union:*
1. The union should see that its members understand the terms of the agreement.
2. The union should assume the responsibility to see that its members live up to the terms of the agreement.
3. Union representatives should make themselves available for conferences when they are requested by management.

*Managements of companies that have outgrown their organization frameworks can bring themselves up to date by: observing the distinction between line and staff functions; outlining clearly the duties and objectives of staff departments; establishing controls on a bottom-up basis; making sure that individual duties and responsibilities do not overlap; hiring the most competent executive personnel available.*

# Line and Staff— Their Roles in the Organization Structure

By J. K. LOUDEN

THE study of the principles and problems of industrial organization is one of the most fascinating in our whole complex way of life. However, the magnitude and ramifications of the problem are so great that we will have to limit our discussion to the second of the two distinct phases of this management problem. "Planning," the first phase, has to do with the formation of policies; the second phase—"Control"—has to do with organization structure and supervision.

The science of administrative management has been outstripped by technological progress. The reasons for this are many but the chief cause is that we have not recognized that the problems of administration and organization are as complex and important as our technological problems; as a consequence, we have not devoted the same talent and energy to their solution as we have to those of engineering, research and production practices.

Consequently we find many present-day organization structures creaking and groaning under the burden of trying to coordinate and control effectively an enterprise that has expanded and outgrown its original organization framework while still striving to function within it.

When we speak of organization structure we are concerned with the device that enables people to work together in groups as effectively as each would work alone. While that statement of our objective is simple the solution is not, and it becomes less simple as our business grows and expands beyond the small organization that one man can virtually operate alone, from an administrative standpoint.

As we discuss this problem we must keep in mind the secondary phase of control, which is the supervision that is required for the effective direction of the work of employees along organization lines toward the objectives already planned.

Rather than devote our time to a general discussion of this broad subject, touching lightly on all its ramifications, it might be more constructive if we again sharpened our focus and chose for analysis one phase: the relationship between line and staff groups.

Staff functions in many organizations just grew without much planning, when by sheer weight of duties the line organization had to supplement itself with people who became specialists in a sense and relieved the line organization of certain duties it had been performing. This lack of planning for growth, plus a lack of understanding of what is involved not only in properly establishing staff departments from an organizational standpoint but also in defining the duties and responsibilities of the various staff departments, accelerated and magnified perhaps the single greatest weakness in

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our whole organization structure—our inability to fully understand what are the duties and responsibilities of staff departments and how they should be used.

***Distinction Between Line and Staff***

Fundamentally, the line is responsible for end results and the staff is responsible for adequacy of the program for that function assigned to it, the adequacy of the methods and procedures for conducting that function, the quality of the service it renders to line departments through assistance and advice, and the evaluation of the efficiency of the line operation in the light of the particular function's stated and mutually agreed upon objectives. Staff has no line responsibilities other than within the confines of its own organization.

Thus, as we develop our discussion of this relationship between line and staff functions and functional control, we must first of all recognize that *staff departments are service departments for the line organization.* In providing the service that they have been set up to give they must not in any way usurp the prerogatives of the line people. At the same time the line people must learn to utilize the services of the staff groups and cooperate with them in order that both may obtain the full benefit of their common efforts. Each has a definite obligation to the other.

As we analyze our problem further we often find that staff heads have a tendency to exaggerate their responsibilities in the organization, partly because of lack of proper definition and general balance in organizational thinking. The staff head tries to strengthen his own position and the importance of his function by over-stressing his duties and responsibilities to the detriment of the organization as a whole.

Many times we find this tendency encouraged and fostered by a general executive who, to cover up his own lack of understanding, lets it be known that a certain staff function or all staff functions must pay their own way if they are going to stay in existence. It is true that every function must make its contribution to the business; nevertheless the proper approach is to determine first the need and then the extent of its operation, the methods and approach that will be used, and the number of individuals to be associated with it. When this is done the only wise measure of its success is the over-all progress of the business and the general effectiveness of the function in question. Over-elaboration and over-emphasis of staff departments are to be strongly avoided at all cost, for their own good and for the good of the company as a whole. At the same time, staff departments should be told that they are a definite, integral part of the whole and given the prestige and support they need if they are to perform effectively.

For example, we often find the accounting department being accused of setting up a labyrinth of accounting procedures that produce reports in volume that have little, if any, meaning to the line executive. Thus an organization may be carrying a heavy overhead for accounting but is getting little actual value in return. If such is the case the full blame cannot be placed upon the heads of the accounting department. Those major executives who fail to define the objectives and the services to be rendered by the accounting department with their aid are primarily responsible.

In approaching our organization problem from an engineering standpoint, is it not true that we have an accounting department to service two basic needs, the first being to provide the necessary financial statements for conducting the business, and the second to establish cost controls for the operating people? Therefore, in approaching the problem of the duties and responsibilities of the accounting department and setting up the organization necessary to carry them out, we should first determine the accounting necessary to reach the first objective and set it up for that purpose and that purpose alone.

After this first objective has been determined, then the necessary cost controls are designed, and again they should be designed to fit the actual needs of the operating personnel. When these cost controls have been determined, then the financial accounting system is altered to fit these actual minimum needs. In this way, and by using similar approaches, we can greatly simplify our organization structures and the routines and methods they support, reduce our costs, and increase the efficiency and effectiveness of the staff or staffs in question.

If we have adopted the basic organization principle of delegating maximum responsibility with the accompanying authority at each level of the organization from the bottom up, then we should follow that same principle wholeheartedly in the development of the control procedures that we are going to apply in our organization, regardless of their nature.

Once the objectives and basic principles are established for the function in question, then the procedures developed for it should also work from the bottom up rather than from the top down. Too often we work from the viewpoint that we should establish a tight control, with complete information in the central office, so that we know at all times exactly what is going on

in the various divisions of the business, rather than furnishing the divisional and department heads the information they need and allowing them maximum flexibility in the operation of their responsibilities.

Pursuing the first course, that of working from the top down, we find the basic cause for over-elaboration and the resultant strangulation of a business. When we work from the bottom up we find developing the exception principle of management, which is the one we seek.

Only those parts of a procedure are squeezed from one level up to the next and each succeeding level as are necessary to provide proper working information, materials, data, and the like to the level in question, and to provide necessary historical and cost information as well as operating exception controls for the upper levels of management.

We might summarize our basic philosophy in developing procedures as follows:

1. The assignment of maximum authority and responsibility at each level of management as is practical and in keeping with the end results desired;
2. Provide adequate checks and balances to determine the effectiveness of the organization quickly and simply;
3. Keep every phase of procedure or system stripped to its bare essentials;
4. Recognize that situations do not remain static and be on the alert to keep the control procedures up to date and at their maximum effectiveness.

It has been my experience that, in small industrial organizations particularly, the staff functions, if they exist at all beyond the mere point of record-keeping, are completely submerged and dominated by the line organization. This is primarily due to the fact that the line executives and supervisors performed their own staff functions, and it was only as the enterprise grew that the staff functions in their own organization emerged through the sheer weight of detail into the sunlight as important functions of the business. Since they often emerged without careful planning and thought, it is difficult for them to perform their functions properly.

In most companies the accounting department was the first to emerge as a full-fledged entity and in due course it became the dumping ground for all staff functions. As evidence of the lack of planning in the evolution of the organization, today we still find many instances where such functions as time study, rate structure, forms and procedures control, inventory control and the like are under the accounting department. The personnel, or industrial relations, department and the production control department were next to emerge, and here too we find a wide variety of functions under these banners in different organizations.

In many cases functions were placed where they were for such reasons as these: a certain individual sold the management on the need for a new function and therefore he was given the responsibility for it; or, when it was decided to add a new function, it was given to the individual who, the management felt, did not have too much to do and would take an interest in it.

Today, through learning the hard way, we know that the problem of developing and maintaining an effective organization structure in all its detail in a company of any size is a full-time job for a capable individual or group of individuals. Yet in how many companies do we find such a function adequately established?

***Duties and Responsibilities Are Not Clear***

It would be difficult to find a group of conditions that could cause the effectiveness and morale of an organization to deteriorate more quickly than the overlapping and duplication of functions and the uncertainty of duties and responsibilities. We would not consider giving an operator a part to be machined without providing him with a blueprint and specification sheet detailing exactly what was wanted. Yet only a small minority in the management group of a company can tell you with sureness and in detail what their duties and responsibilities are.

Such a condition causes various unhappy situations. It can mean that through lack of definiteness no one really feels responsible for a certain function or problem. Again it can result in a tug-of-war between individuals or departments as to which one can grab the greater part of a function or at least keep digging into the situation to a degree that they are all confused and effectiveness is lost.

Yet in many cases we find organizations lacking definiteness that are reasonably effective simply because the individuals in them are determined to make the organization work in spite of the lack of definition and overlapping of loosely stated responsibilities. This raises the important question of just what the true potential of such an organization would be if it were streamlined and set up and oiled to make a smooth working, hard hitting machine.

Again we know of organizations that are torn with dissension because lack of definition brings on harmful

competition, with everyone looking out for himself. It takes an alert, determined general management not only to recognize the problem and realize its solution but to move forward with a sound program to overcome such difficulties and prevent the loose thinking and expedient approach ever again getting into the policy-determining functions of the business.

Great care and thought must be given to this matter of defining each individual's duties and responsibilities. There are three general measuring sticks that can be applied to each situation and each position. These are:

1. What can I do and tell no one I did it, since this falls wholly within the scope of my duties and responsibilities?
2. What can I do and tell my superior I did it, since it affects others in my organization?
3. What can I do only after I have received approval to do it, since it falls outside my duties and responsibilities?

The Standard Oil Company of California has this to say about responsibility and authority in its own organization: "The term 'responsibility' encompasses the specific aspects of the function of a position. These aspects are the components of the function which the individual is required to execute, or the duties of the position. A statement of authority of a position is essential if the occupant is to understand and be held accountable for the manner in which he fulfills his responsibilities and to know the limits to which he may go in so doing. The presentation of authority should in every case relate specific authority to its attendant responsibility." To these two terms they add a third—"accountability"—which is the obligation of an individual to render an account of the fulfillment of his responsibilities to the principal to whom he reports.

In approaching this matter of defining duties and responsibilities, we must take care to avoid the pitfalls that often accompany such definitions and might be grouped under "compartmentalism." When an organization becomes compartmentalized, each individual in it becomes blinded to all other responsibilities except those written on his own specification sheet.

As long as he is performing in a reasonably satisfactory manner the duties and responsibilities outlined, he feels he is doing his job. That is not the case. Management at all levels must feel a stewardship for the business as a whole. This stewardship must not encroach on fundamental responsibilities. It must always exercise a secondary role, but any manager, regardless of the level at which he operates, who does not feel an over-all stewardship and a degree of responsibility for thinking of the over-all business and passing on suggestions and ideas he may have to those concerned is truly derelict in his duties and obligations.

It is this fear of compartmentalism that I like to think is back of the attitude some executives take in establishing a highly competitive situation within their organization on the theory that competition brings out the best in a man. They fail to recognize that competition can be a destructive force as well as a constructive force and their organization suffers accordingly.

### *Getting Competent Management Personnel*

Never more than today has there been a higher premium on competency of the individual and this fact will become even more evident as time passes. We must recognize that management people of tomorrow must be team players and all-around business men. They must believe in, understand, and be able to conduct themselves under the guiding philosophy of a true social conscience and a realization that upon their individual and collective shoulders rests a great responsibility for the future welfare of their company and country. Therefore, the problem of selecting and obtaining competent management personnel should also receive the full attention of the top management of the company.

Competent personnel I believe to be the key to the whole problem. The supporting arch of a successful business is composed of many stones, such as sound objectives, sound character and moral code, good leadership committed to high principles, sound organization structure, sound policy, and others, but the keystone is competent, dynamic personnel.

Often where we have weak line organizations we have attempted to bolster them with additional staff people, which brings increased overhead and none-too-satisfactory results. Our goal should be to have competent, well trained line personnel and the minimum of equally competent, well trained staff people to service them in a balanced, orderly manner. We cannot make up for personnel weakness by adding supporting people, whether it be line or staff or both.

Top management must realize that to have built an effective competent organization is not enough. It must plan for the future and develop definite programs to provide competent follow-ups for its key people and to carefully train and equip them to assume greater responsibilities as the opportunities arise.

Industrial history is strewn with the wreckage of

once proud names that failed because their managements failed to foresee this important need.

In summarizing the basic principles for developing a sound organization structure, it would be difficult to do a more able job than was recently done by Harold V. Coes, Past President of the A.S.M.E., in a paper on this subject. His outline follows:

1. Separation of functions of the business, such as sales and distribution, production, purchasing and procurement, financial and accounting, engineering, research and development, and industrial relations;

2. Setting these line functions up with their logical sub-division so that there is no overlapping or conflict and so that no individual receives direct orders from more than one individual, and that, his immediate superior; he may, however, receive aid and advice from staff officers or assistant;

3. Clean-cut distinction between line and staff functions and functional control;

4. Clean-cut specification of each management job in the entire management sequence at the several management levels to avoid divided responsibility;

5. Suitable and adequate delegation of authority and responsibility for each member in the management sequence, varied in accordance with the management level;

6. Selection for each position in the management sequence for each management level of the most suitable and competent individual, without fear or favor of political influence.

I would add one more point, and that is, giving your people the right to fail. We cannot expect our people to take aggressive action based on their best judgment if they do not fully understand and believe that they do have the right to fail. We expect our people to maintain a good batting average, but we must realize that if we are going to encourage them to take the healthy cuts at the ball that produce game-winning hits, we must give them the right to strike out.

As we discussed earlier, when we look back on our experience we find that quite often the matter of organization structure has been left to the individual division heads to work out for their own responsibilities, following broad general policies laid down by the top management. Additions or changes in the organization were frequently made largely on the basis of expediency or because some executive was not so busy as another. What ultimate effect this might have on the over-all organization plan and its soundness and effectiveness seldom received much consideration. Yet we know that the problem of establishing and maintaining an organizational pattern requires a permanent study by a qualified staff group responsible to the chief executive of the organization. The problem must be approached from a purely objective standpoint.

The objectives of such a balanced organizational program would call for relieving top management of administrative detail and routine so that it is free to plan for the future and be in a position to devote sufficient time to matters of over-all policy and control. This calls for breaking the business down into logical parts that permit definition and delegation of full responsibility and authority within specified limits of policy; to provide maximum coordination between staff functions and line and staff agencies with a minimum of duplication and red tape; to insure full understanding by each individual of his duties and responsibilities and his corresponding degrees of authority.

In view of the increased complexities of operating a business and the sudden adjustments facing management in times such as these, it is obvious that such an analytical group would prove invaluable in aiding management to overcome these problems with a minimum of dislocation and confusion. Once again, such a function would be a staff or service function, it requires the full cooperation of all other line and staff agencies, and in itself it cannot do other than analyze or recommend. The power of decision, unless delegated, rests in the hands of the major executives.

### *Relationship Between Staff and Line*

Many matters discussed and worked on by line and staff groups are highly controversial and often have sharp impacts on the lives and working habits of people. Therefore, it is essential that the whole relationship and work pattern be based on sound comprehensive policies and common understanding of those policies. It is also essential that agreement be reached on basic principles and relationships between line and staff.

When we relieve a line member of the functional responsibility for certain phases of the work performed in his department, we are not relieving him of the responsibility for the ultimate successful performance of these functions in his area of responsibility. Nor are we usurping any of his duties and responsibilities for the operation of his department. We are only relieving him of the responsibility for the detail work of the function

in question and the coordination of this work between his and other areas of responsibility.

In other words, each member of the line must have certain staff functions performed in his area. It is neither practical nor desirable for each line executive, such as a foreman, to have his own independent staff group. Therefore, plant and company-wide staff functions must be created to perform that work for him to the degree he requires it and in accordance with established company policy.

While the staff man in question may not report directly to a given member of the line, that member of the line bears an equal responsibility with the head of the staff for the successful performance of that work in his jurisdictional area. If it is not being done to his satisfaction, then it is his responsibility to take it up with the proper persons and see to it that corrective measures are taken or that differences of opinion are adjusted.

It is easy to see why there is often misunderstanding and lack of harmony in line and staff relationships. Yet, if a staff member recognizes that, while he has a definite primary responsibility for certain functions in an organization, he is at the same time primarily a service man for the line and must work as such, then he will do a better job as a staff member.

On the other hand, the line member must realize that the staff man is being held responsible for the performance of his function and must accept his help to the proper degree and cooperate with him to the point where maximum benefit is obtained by their joint efforts. But the answer in no small part lies in the determination of both groups to work together in such a manner as to achieve maximum results with minimum confusion.

It is obvious that before results such as these can be obtained down the line, top management must understand the fine points of these relationships and establish sound complete groups of policies and definitions of duties and responsibilities to govern them rather than leaving it up to the group directly involved to work out its own salvation.

Sound fundamentals must be adhered to even in the face of trying circumstances. The line supervisor must remain in control and be responsible for all activities in his area of responsibility. This must be true in fact as well as theory. Yet we hear of the direct responsibility for such a vital fuction as labor relations being taken from the line supervision and given to the personnel staff as a direct responsibility, the reason given being that these duties take up too much of supervision's time. That type of expedient solution is disastrous since it strips a vital portion of the supervisor's authority from him and renders him incapable of effectively supervising his people.

### *Staff Work and Technological Change*

In the rapid growth of our economy we have failed to realize or recognize the impact of technological change on the individual. We have attempted to dull our comprehension of this problem by the use of such sedative concepts as the growth of our economy and the long-range benefits for everyone.

The individual is at best secondarily interested in long-range trends. He is primarily interested in his own immediate problems and security. You cannot convince a man that he has nothing to worry about technological changes that are good for the whole economy although the price may be his job and security.

Therefore, both line and staff must weigh these impacts and, if proper policies governing such conditions are not in existence, then they must carry the ball for such policies so that they can proceed with the full knowledge that they are properly equipped to meet their problems in human relations in a sound manner. Such policies as we are referring to make it possible for the line and staff to do a better technical job and for the workers involved to be psychologically capable of supporting the program and accepting the normal personal risks that are a fundamental part of progress.

Again, in this same connection, care must be taken and thought given to estimating the effect of everyday decisions and actions upon the behavior of our associates and so constructing our actions that they will find the greatest acceptance and least disturbance in our relations with others. If both line and staff keep before them the three fundamentals of sound human relations—common courtesy, careful consideration, and conceding of credit, not only in developing their own working relations but also in weighing the results of their efforts on others, then their way should be smooth.

Staff people have a tendency to be over-critical of line people, particularly if they feel their function does not receive its full share of attention. Accordingly, they often fall into the grave error of carrying their criticisms to the upper levels of line management and thus destroy the confidence that must exist between line and staff if they are to work together successfully. Staff should by no means cover up for the line, but anything that is going to be reported by staff on line's activities or the status of the function in question should be cleared with line beforehand. Staff must always be

super-careful to present line's viewpoints favorably and refrain completely from attempting to undermine line's position.

As we stated earlier, the matter of determining the proper organization structure and the selection of competent personnel to man it is one of the most complex faced by management. Yet its successful solution can be achieved as can all other problems affecting the operation of a business if the heads of the organization, as well as their subordinates, keep before them the creed of the successful manager, which is a constant search for facts and their unprejudiced analysis.

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# *How Free Is Your Enterprise?*

UNDER the theory of free, competitive capitalism, the public interest is assumed to be protected by the force of competitive enterprise—the "higgling of the market place," the "unseen hand of competition." The dictum, "That government is best which governs least," is founded upon the theory that no central regulatory government is needed to protect the public interest. Under competitive capitalism consumers are protected from high prices by the constant rivalry among numerous firms for a greater share of the market. A market which is "free and open" safeguards the smaller, independent producers in their efforts to offer new and better products. A free and unfettered competitive system gives workers not only the legal right, but also the actual opportunity to seek gainful employment among a relatively large number of firms and thus most profitably utilize their special skills and abilities. The existence of competition protects the farmers by (a) bringing down the prices of the articles which they buy and (b) creating a mass market for the products which they sell.

Consumers, smaller producers, workers, farmers—all are assumed to be protected by this invisible force. It keeps open the opportunities for improvement and advancement and yet prevents the abuses of size and power. It absorbs revolutionary technological and economic changes and yet requires no revolution in our system of government. It is no exaggeration to say that the theory of competition has been the heart of the American philosophical and political system.

So much for the theory; but what of the actuality? In practice, competition has proved to be a somewhat crudely working but, on the whole, highly effective theory and system. Yet, it would be blindness not to recognize the obvious fact that the effectiveness of competition, as the protector of the public interest, has been seriously weakened during the last several decades. In industry after industry, prices, production, employment and, in fact, all forms of economic activity have come under the domination of the Big Four, the Big Six, or in some cases, the leader.

It is true that in some of these highly concentrated fields competition still functions as a reasonably effective force. But in others the industrial and financial figures who control the giant corporations have apparently adopted the policy of live and let live. Vigorous price reductions have become conspicuous by their rarity. In such fields, the dead hand of corporate control has replaced the unseen hand of competition.

No great stretch of the imagination is required to foresee that if nothing is done to check the growth in concentration, either the giant corporations will ultimately take over the country, or the Government will be impelled to step in and impose some form of direct regulation in the public interest. In either event, collectivism will have triumphed over free enterprise, and the theory of competition will have been relegated to the limbo of well-intentioned but ineffective ideals.

*(From a summary report of the Federal Trade Commission on "The Merger Movement"; Washington, 1948: Government Printing Office.)*

# Book Reviews

***Bettering the Bulwark***

*Supervision in Business and Industry,* by ROBERT D. LOKEN and EARL P. STRONG. 225 pages. New York, 1949: Funk & Wagnalls in association with *Modern Industry.* $3.50.

TAKE the professional Director of Employee Training in a successful company, mix with a well seasoned Professor of Business Management in a prominent university, let them simmer over a worthwhile objective, sprinkled with a bit of sociology, philosophy, psychology, plain common sense, a spirit of human understanding, and you have a bountiful fare of good writing. If this resembles enthusiastic praise of Messrs. Loken and Strong's endeavors, it is so intended.

Very likely the experience in administrative training gained by these accomplished authors during the war heavily influenced their work. If so, one must wonder what a tremendous boon such a book as this would have been in the dismal years of early war production, when we suffered from the woes of over-extended management. For here, in their fairly brief analysis, they have presented many understandable answers to "How do we get a job done—well?"

Avoiding a prevailing temptation to launch into the mechanics of telling supervisors the "when," "what," "why" of getting workers to do things they should do, this little book is launched on a keynote of bona fide business administration: the powers of unity of command, span of control, homogeneous assignment, delegation of responsibility. From this point there ensues a fine development of basic managerial concepts through the avenues of organizing, planning and control of a job.

So much has been written in recent years about the problems and perversities of supervisors and foremen that it seemed little was left to be said. On the contrary, this book adds quite a bit more on the plus side, striking a note of constructive encouragement, yes, "even in these days" of continued pressures.

It is a suitable text for schoolroom or shop, for workdays or weekends, to be opened at random today or tomorrow. Here is a quotation, from Chapter X, "Problems of People at Work": "Unfortunately, the employer cannot hire a worker for only the eight hours which appear on the time card. When he hires a man from eight to five, he gets the worries, the problems, the joys and the sorrows which the man experiences during the balance of the twenty-four hours as well." Whether that is the professor or the personnel man speaking, he must know that it applies equally well to the employer or supervisor himself. A more general realization of that truism will result in superior supervision, the bulwark of American industry.

EDWARD J. WALSH

*(Mr. Walsh, whose first review for this magazine was published in March, is General Foods' Personnel Manager.)*

***Broadening the Professional Front***

*Education for Professional Responsibility,* a Report of the Proceedings of the Inter-Professions Conference, 1948, with an introduction and concluding chapter by ELLIOTT DUNLAP SMITH. 207 pages. Pittsburgh, 1948: Carnegie Press. $3.00.

THIS book affords indubitable evidence that all of our professions are in a markedly transitional stage but at no point as yet to be described as in a ferment. What sparks there are derive from the clash between the isolationism of science and the multiplying arguments for social responsibility. As long as professional status was accorded only to the so-called "learned professions"—principally the law and the Christian ministry — things were kept pretty much under control and the status quo had a strong tendency to persist. But now that professional competence ranges through business, engineering, art, music, the social sciences, law, theology and literature up to and including world-rending pure science, the professional front has been so broadened that standardizing influences have at points been upset. In thousands of professional minds new questions are being asked. This is the meat of this book. It will afford thrilling reading for educated people who want to know how to behave in a civilization that is obviously slipping its moorings.

The eighteen eminent contributors to the book vary in social outlook from the type of scientist still happy in his sequestered laboratory and quite willing to let society take care of itself to quite a few who hold "that every practitioner of professional stature knows that human and social problems are inherent in all major professional problems."

Only through an occasional hint is the major negative influence in American education recognized, i.e. the seeming necessity for earning a progressively ample livelihood—this to be accomplished without crossing lines of conduct held in esteem by our economic system. The over-all thesis of the book would have been more convincing if someone had come to grips with this problem for one does not expect sound slumber if there is a suspicion that a man is under the bed.

The weight of opinion among the authors would suggest that the cooperation of the professional groups is implied in a well ordered society. And yet no one has suggested how our educators might cope with the fact that, except for a minimal percentage, professional people hold aloof both from community activities and from politics and politicians who are providing the foundation and much of the superstructure of our civilization. Professional people normally despise politics.

Some of these major maladjustments between our social system and the

seemingly better educated classes grow out of our emphasis on professional status, which means an emphasis on specialization. If the educational system provides well rounded individual characters, its next obligation is to lead them to effective citizenship and finally to afford each a competence in some professional group. If the intermediate citizen status is ignored we can only expect the present chaos of uncoordinated specialism while pretending to cope with an increasingly complex society.

One definitely gets the impression from the thinking in this book that the competent study of human relations sometimes expressed in management engineering and the social sciences is gaining ground on ivory-towered physical science.

MORRIS LLEWELLYN COOKE

*(Mr. Cooke, one of the pioneers of scientific management, is now a Consulting Engineer in Philadelphia.)*

### *Everyone Benefits*

*Getting Results From Suggestion Plans,* by HERMAN W. SEINWERTH. 223 pages. New York, 1948: McGraw-Hill. $3.00.

"THE hardest thing in the world is to get a human being to wrinkle up his brain and think." So observed Thomas Edison, as he is quoted in this excellent book, which goes on to point out that it was in answer to this problem that suggestion plans were developed in industry. Organized plans for utilizing the still largely untapped resource of creative thinking by employees proved themselves dramatically during the past war, as most of us recall. J. A. Krug, then chairman of the War Production Board, stated their value emphatically at the close of the war when he said: "Production suggestions are saving the nation at a very conservative estimate more than 200 million man-hours of work per year. That is the equivalent of the full-time labor for an entire year of an army of about 80,000 workers." Others have placed the over-all dollars-and-cents savings in both government and private industry during the war at more than a billion dollars per year. But of course, these estimates do not take into account the tremendous intangibles that could not be calculated on a dollars-and-cents basis.

The fundamental justification of suggestion plans holds good in peacetime as well as in war: everyone benefits—employees, through cash awards, personal recognition, a feeling of participation, and stimulation to self-improvement; employers and management, through improved output, utilization of a new training tool and, of course, the tangible benefits of improved methods; and, finally, the public, which always benefits from anything that improves products, lowers prices, and provides jobs.

If you want to turn these benefits to your own account, you can do no better than absorb the contents of this book as a starter. It is eminently a "how-to-do-it" book, admirably organized to get its information across in the most usable way.

There are four parts. Part One gives a brief history of the subject, together with a bird's-eye-view of the steps necessary to get started. Statistics quoted from a survey by the National Association of Suggestion Systems are interesting guides. Using this 1945 survey as a yardstick, you can expect, on the average, 0.206 suggestions per employee per year, of which 26.3 percent will be adoptable. Average award in 1945 was $21.06. As a rule, most companies use an award scale averaging ten percent of the yearly saving.

Part Two is a useful guide to policy formulation on suggestion systems—covering organization, eligibility, awards, patentable ideas, and the like.

Part Three is devoted to procedure, and gives full details on how to operate a plan, functions of the suggestion committee, acknowledgments, investigation, turndowns, presentations, etc. A very useful chapter lists twenty-five questions that are commonly asked about suggestion systems and the best answers in the light of the author's experience.

Part Four clinches the subject by giving eleven case examples of suggestion plans in successful operation. These are grouped under manufacturing, transportation, public utility, department store, and financial, and include such outstanding companies as Firestone Tire and Rubber Company, Remington Rand, General Motors, and Illinois Central Railroad.

CARL HEYEL

*(Mr. Heyel, the Assistant to the President of Lehn & Fink Products Corporation in New York, is the author of several books and editor of the recently published* Reading Course in Executive Technique.)

### *The Physiological Cost of Work*

*Work and Effort,* by THOMAS ARTHUR RYAN. 323 pages. New York, 1947: Ronald. $4.50.

THIS book is primarily concerned with the methodology of scientific research as it is related to the concept of efficiency. It is in large part a treatise on techniques in the measurement of the physiological cost of work to the individual and draws heavily from the laboratory studies conducted in this area.

Efficiency is defined as the relationship between the cost of work to the individual (effort, fatigue, energy expended, etc.) and the outcome. More than one-half of *Work and Effort* is devoted to elaborating, explaining, qualifying and exhausting this concept. A rather thorough review is presented of the laboratory studies conducted on muscular and mental fatigue as well as of the various tests and indices developed to measure these phenomena. For any one interested in a current summary and critical evaluation in this area, the book would be valuable.

The chapters on work methods and time standards are brief and have value only in their mature criticisms of technique and methodology. Merit rating is also treated along similar lines.

Although the author lists the problems of motivation as a major problem along with the problems of efficiency, too little space is devoted to them in the context and the result is a lack of balance for the volume. The subject of work is treated rather completely as something that must be carefully ana-

lyzed in the most minute detail in the laboratory and then subjected to rigorous statistical check. The social aspects of work are not considered.

The caution exercised by Professor Ryan in the evaluation and interpretation of the results of experiments is possibly the greatest feature of the book. The precision and care exercised in the analysis of problems must serve as a warning to anyone who might otherwise be less exacting in following the rigors of scientific techniques.

To help clarify the author's point of view, here are a few references. On Page 122 he says, "The reader has probably gained the impression that these chapters on the fundamental problems of efficiency have raised more questions than they have answered. If so, it is all to the good. . . ." In summarizing the material on noise and its effects (Page 129), Ryan says, "All that we can conclude from the facts now before us is evidently that meaningless intense noises are likely to reduce output slightly when they first begin, and, for that matter, when they first cease." Similarly, on Page 156 he says, "We could not interpret Kleitman's results even if they were highly consistent and statistically significant." In referring to time study, he says (Page 236) "Unfortunately, time study men have, in the past, shown little interest in providing definite statistical evidence of the effectiveness of their methods and the methods have been accepted largely on faith." In drawing conclusions about the graphic rating method (Page 279) he says "We have supported the thesis that the graphic rating scale with numerical scoring has serious logical difficulties and practical inadequacies. These flaws are so serious that they more than offset any advantages which are claimed for these rating techniques, especially since there is little more than common sense argument to support these claims."

His basic point of view is most succinctly presented on Page 293 when he states, "As in most fields of research, when our knowledge of a field increases, we become more and more aware of the important gaps in our information and of the need for new types of research which could not be envisaged before our present knowledge was obtained."

It is unlikely that students of personnel, industrial management and related fields without a firm background in the exacting demands of psychological experimentation can materially benefit from a casual reading of the book. Although it is written well, it is written with the heavy hand of a scientist who expects that the reader will be sufficiently motivated to plow through a difficult presentation. This book is recommended for anyone who wants to learn more about the requirements of rigorous experimental methodology. It presupposes a knowledge of at least the methodological phases of experimental psychology. The emphasis is on problems that border on industry but are not quite always in focus.

MILTON L. BLUM

*(Professor Blum, author of the recently published book,* Industrial Psychology and Its Social Foundations, *is Associate Professor of Psychology at the City College School of Business in New York.)*

### *Four Phases of Management*

*Industry and Society,* edited by W. F. WHYTE. 211 pages. New York, 1946: McGraw-Hill. $3.50.

*A Labor Union Manual on Job Evaluation,* by WILLIAM GOMBERG. 80 pages. Chicago, 1947: Labor Education Division, Roosevelt College. $1.00.

*Personnel and Industrial Psychology,* by EDWIN E. GHISELLI and CLARENCE W. BROWN. 475 pages. New York, 1948: McGraw-Hill. $4.50.

*Organization and Management,* by CHESTER I. BARNARD. 244 pages. Cambridge, 1948: Harvard University Press. $4.00.

PROFESSOR Whyte is one of the distinguished younger generation of social scientists whose explorations have centered in the field of human motives. His scholarly production has been characterized by a freshness of outlook and vigor of statement which make his material at once profound and easy to read. In this volume he has been content to act in the role of editor. But the selection of material is influenced by his point of view, and he has thus assembled material of great value to all students which it is a useful service to have in one volume. In addition to his own chapters, the summaries of certain findings of Professors Warner and Low, of Chester I. Barnard, of Mark Starr, and of Professor Harbison, stand out as especially valuable. This book has unique value both for teachers and for executives.

Mr. Gomberg is achieving increasing prestige in the ranks of organized labor and of management through his studies of various phases of industrial engineering. He works from the vantage point of his position as Director of the Management Engineering Department of the International Ladies' Garment Workers' Union. In this compact volume he offers to labor union officials material which in his experience they need to master on procedural phases of job evaluation. He does his job so well that personnel executives will surely want to have this book on their desks for reference purposes, when questions of job evaluation in connection with collective bargaining arise.

Both the value and the limitations of the volume by Professors Ghiselli and Brown lie in its emphasis upon the use of scientific methods and procedures. Students will find an approach in terms of methods of analysis and in terms of a consensus of recent scholarly findings, which should prove a valuable introduction into a psychological approach to personnel problems. In this analytical and descriptive sense the book has utility for introductory purposes. But it lacks any sense of warm, human responsiveness and of basic attitudes of friendliness and sensitiveness to personal considerations, without which the practitioner will be woefully deficient. It sometimes seems as if our writers in this field had not yet solved the problem of a presentation which combines factual data and perceptiveness to applied skills of personal and group relations.

No one can pretend to a grasp of the

deeper problems of management without a careful study of all the writings of Chester I. Barnard. He is, I believe, one of the most incisive, realistic and penetrating students in a relatively neglected area. His most recent book includes a collection of important papers and does an invaluable service in rescuing them for permanent study. One does not have to share all of Mr. Barnard's conclusions to recognize that he is always asking the right questions and putting his finger upon the most difficult problems related to the human aspects of management. He is one of the very few philosophers of business and his insights on such general themes as leadership and democracy cannot be ignored. If they are not at every point convincing, they require refutation which entails an equal capacity for philosophical analysis. Mr. Barnard's language is not always of the simplest, but he is one of the few writers in this field whose work repays sufficient study to grasp the ideas he is advancing.

ORDWAY TEAD

### *Society Consists of People*

*Guideposts in Time of Change,* by JOHN MAURICE CLARK. 210 pages. New York, 1949: Harper. $3.00.

PROFESSOR CLARK has long been known as an "economist's economist." This is the highest compliment that can be paid any man in a profession where different and contradictory viewpoints are so pervasive. In this book—a series of lectures delivered at Amherst College—Clark continues to display those traits that have made him great: the ability to isolate the significant problems, to show keen insight into the source of each one, and to suggest solutions that display wise judgment and great foresight.

Economist though he be, Clark's vision is broad enough to admit that our principal problem at present is a political one: how to deal with the threat of Russian propensities. To this subject he devotes his first two chapters, which are the most sensible and penetrating analysis of the question this reviewer has yet seen. In the light of the recent Atlantic Pact, it is of interest to note that the author suggests precisely such an arrangement, as one important step in avoiding war and maintaining our own security and liberties.

In discussing the basic objectives of our economy, Clark points out an important fact of which most economists frequently lose sight: while full employment should certainly be one of the goals of economic policy, it is essentially a secondary goal, a means to a more fundamental goal—namely, the development of individuals who can make for a sound and progressive society. In his own words: "The most important product (of our economy) is people: good and healthy people, living various kinds of good lives, exercising and developing their capacities, protected against crippling ills, and having the kinds of relations to one another that constitute a good and healthy society" (Page 50). While full employment *by itself* cannot necessarily insure such a state of affairs, this much is certain: without full employment it is definitely beyond realization.

Clark feels that the way to attain and maintain full employment is to insure an adequate volume of spending for consumption and investment. This will probably involve governmental spending to fill the gaps in private investment from time to time. Properly handled, such governmental activity would protect the private enterprise system rather than ruin it. But if Clark is willing to accept private enterprise as probably the best type of economic organization at the present time, he is far from giving the enterprise system a completely clean bill of health. He strongly urges the elimination of important shortcomings of the system (the breeding of a lucrative patent medicine industry is one of Clark's pet peeves) that are not only detrimental to society but that, in the long run, will backfire against private enterprise itself.

While the soundest of cost-price structures will not assure us of full employment, argues Clark, a faulty structure may well prevent us from attaining it and—above all—from *maintaining* it. This stand provides him with a logical transition to a discussion of collective bargaining and wages. He starts with the realistic assumption that not only is collective bargaining here to stay but that, from a social viewpoint, it is a most desirable institution. But unions, like management, can go too far in the abuse of both political and economic power. It is imperative that unions, like business, be made aware of their responsibility as well as their power. Only if such responsibility obtains can we hope for enduring stability. Will it develop? Perhaps a partial answer to this all-important question is provided in the title of one of the chapters, "Uncommon Requirements for the Common Man." To state it less cryptically: It is not impossible, but it is not inevitable.

This book, I believe, is a "must" for all management people (not to mention others) who would be sincerely interested in a penetrating and wise analysis of the problems confronting the American economy.

JOSEPH SHISTER

*(Professor Shister is Assistant Professor of Economics at Yale University and Research Director of the Labor and Management Center there.)*

### *Arbitration Source Book*

*American Arbitration,* by FRANCES KELLOR. 262 pages. New York, 1948: Harper. $3.00.

THE wide range, as well as the rapid growth, of arbitration in many segments of domestic and international affairs is here well summarized. Miss Kellor is probably the best informed authority in this country on the field as a whole. Her account in this brief volume will prove valuable as a survey of the development of arbitration in action. The record she presents of the individuals and organizations that have stimulated the use of arbitration to adjust many types of disputes will also serve as the best reference manual now available.

The author has divided her account into four main sections: theory and

organization of American arbitration; the practice of American arbitration; American concept and organization of international commercial arbitration; men and events. The first and last sections deal with the arbitration "movement"; the other two analyze briefly the ideas about methods of arbitration in civil, commercial, labor and other areas of controversy. For the history of private (as contrasted with international public) arbitration, this volume is an indispensable source book.

PHILLIPS BRADLEY

*(Mr. Bradley, represented in this magazine last June with "The Will to Work," is Director of the Institute of Labor and Industrial Relations at the University of Illinois.)*

### *Federal Planning Problems*

*The Process and Organization of Government Planning,* by JOHN D. MILLETT. 187 pages. New York, 1947: Columbia University Press. $2.50.

THIS slim volume is an attempt to state the problems and appraise the techniques of national planning that we have so far attempted in this country. Dr. Millett draws his illustration from a wide spectrum of government agencies, military and civilian. His main purpose is to indicate the framework of planning as a governmental function and process.

Given an objective to be achieved, whether national in scope or specific in a single department or bureau, how does the organization that is to achieve the objective go about its task? Obviously, some plan is essential both for efficiency of effort and for economy of expenditure. Thus, the first task is to define and organize the planning process itself. The "value judgments" underlying the objective must necessarily animate the planning that precedes the operation.

A preliminary question soon emerges: Who plans? Should the planning be done by the operating unit or should a staff planning agency be set up to implement detailed programming with the objective? Here the author offers some shrewd observations on the hazards inherent in both procedures. He believes that, on the whole, planning is most effectively achieved through a staff organization but that planning must be kept "alive through current operations."

Dr. Millett also discusses the nature and organization of central planning and the problem of "selling the plans." The latter is, of course, an especially acute issue in governmental planning, in the relations of the legislative and the executive branches. But it is also an internal administrative problem, in the relations of line and staff.

Although Dr. Millett has analyzed planning as a governmental process, his observations and suggestions are highly relevant to management in private organizations, industrial and labor alike. Neither type is perhaps as completely bureaucratized as is our national government; each has, however, the same inherent problems of organical planning and projecting into action.

Responsible officers in both these types of agency—and many others—will find much useful and thought-provoking analysis here.

PHILLIPS BRADLEY

### *Two Labor Texts*

*Labor in the American Economy,* by WILLIAM STEPHEN HOPKINS. 368 pages. New York, 1948: McGraw-Hill. $3.50.

*Contemporary Unionism,* by CLYDE E. DANKERT. 521 pages. New York, 1948: Prentice-Hall. $6.65.

PROFESSOR HOPKINS' volume is designed for students in the first course in labor economics. He has attempted "to reduce the vast detail of Labor Economics to a comprehensible sequence of ideas within one general frame of thought." Believing that the trend towards "comprehensive" textbooks in the labor field does not meet the student's need, he has tried to cover the subject so that the student will not be bedeviled by too many facts. This is a laudable undertaking, but Professor Hopkins' range of material is by no means narrow.

The book's fourteen chapters cover most of the problems dealt with in traditional textbooks, except that it is done on a much reduced scale. There will of course be differences of opinion on whether this is the better way; teachers do not agree on this question. While I found the style sprightly, the book contains many gaps. It seemed to me that this volume was more suitable as an introductory course in labor problems for people not attending classes, than for classroom use. My objection would be that it does not contain enough material for a semester's course.

Professor Dankert's volume is a useful handbook on labor unions. In twenty-seven chapters he has discussed every aspect of unionism from its history to its effect on the general welfare. Both readers and teachers will find this book useful because the author sticks close to the known facts. Occasionally, the observations are not too penetrating. In a footnote we are told that, as workers in the Soviet Union supply all the capital, they do "not have to worry about their 'share' since presumably, everything goes to them anyway. Consequently, trade unions of the type to which we are accustomed are not needed." Actually this does not mean much. The community supplies capital in the Soviet Union, as it does in the United States. Moreover, the allocation of income between saving and consumption is important in every society. In fact, the Russians badly need unions like our own. Perhaps if independent unions existed there might be more consumption goods available. The problem on that score is not much different here from that in the Soviet Union. The story of the mutual visits of committees of Detroit and Moscow automobile workers will illustrate the point. A committee of American automobile workers visiting the Soviet Union inquired "who owned the plant" and were told "the people." Outside they saw a few cars in a parking lot and inquired as to their ownership; they were told, "the director and his assistants." When the Russians returned the visit to Detroit, they asked a Ford worker "who owned his plant" and he replied "the Ford Company."

Outside they saw thousands of cars in a parking lot and inquired "who owned them" and they were told "the people." It is true that Russian unions have other functions but the only reason they exercise no voice in the allocation of income is that the government restricts their activity.

In a book of this size and containing as much factual material there is likely to be an occasional slip. It does not seem to me that the A.F. of L. was ever greatly concerned with the threat of the Industrial Workers of the World. Nor is the statement acceptable that the Norris-LaGuardia Act gave great impetus to union organization. While the passage of the law undoubtedly contributed to the improvement of labor's position, there is no evidence it would have been effective without the protective labor legislation of the New Deal. Professor Dankert also questions the accuracy of the description "that the A.F. of L. is a federation of autonomous unions." Certainly in terms of power distribution this is true; the other units are either auxiliary ones or temporary groups exercising no decisive influence on policy. In discussing the government of the A.F. of L., Professor Dankert agrees that "unity in the executive council is not as real today as it was under the regime of Gompers." This may be true, but it may be well to point out also that the A.F. of L. is more united today than it was in Gompers' day. No appreciable socialist faction exists today as it did from the founding of the A.F. of L. to the 1920's.

Of course these observations do not affect the merit of this work. A more serious shortcoming is the author's occasional failure to explore issues more fully. For example, the discussion of the A.F. of L.'s attitude towards joining the World Federation of Trade Unions is inadequately explored and the impression is given that the objection is primarily based upon the A.F. of L.'s espousal of "free enterprise." The A.F. of L. has more substantial objections. English unions are also opposed to "free enterprise," and the A.F. of L. maintains cordial relations with them. However, English unions can adopt any policy they choose, whether they are favored or opposed by the government. The Russians cannot. Why meet with the Russian unions, which are merely spokesmen for official policy?

Differences in interpretation of some issues are inevitable in a book of this size. To my mind it would have been better to pursue a few of the topics more thoroughly. Nevertheless, the author has shown industry in gathering together an enormous mass of material. Students will find Professor Dankert's book useful and helpful for understanding the many-sided character of American unionism.

PHILIP TAFT

*(Professor Taft is Professor of Economics at Brown University.)*

### *Statistical Quality Control*

*Control Charts in Factory Management,* by WILLIAM B. RICE. 149 pages. New York, 1947: Wiley. $2.50.

THE goal that Mr. Rice set for himself was to provide a book simple enough to serve beginners in the field of statistical quality control, complex enough to deepen the understanding of those already familiar with the techniques, and so extensive as to widen the view of those who have already mastered this tool of analysis. Further, he hopes particularly that this book will bring to top-management executives knowledge of the power of control charts.

The introduction and first two chapters, simply written, are directed toward an explanation of the nature of control, its relationship to inspection and the process of manufacture, and the meaning of a "state of statistical control." Control charts are presented as a means of calling the attention of management to the need for investigation of conditions, processes or workers in order to discover the cause or causes for defective work beyond that to be expected under the theory of probabilities. The author emphatically points out that no more than guidance for investigation is afforded; the full benefit of the technique is not realized until changes in the operation have been made to correct the causes, which in turn were discovered by the search initiated as a result of the control charts kept on the process.

Chapters III and IV deal with the statistical techniques for the use of control charts covering inspection of product characteristics (1) that are measured quantitatively in the inspection procedure and (2) that are classified as within or outside specifications without having individual measurement data in each inspection. This material is written in the symbolism of the statistician, although the technical jargon is largely avoided. Most businessmen and others having no previous understanding of the statistical theory of a constant system of chance causes will probably wish to pass over these two chapters. The text will be largely beyond their comprehension. Those with some knowledge of the theory of probability who wish to know the derivation of the factors and formulae used will find two brief technical appendices.

For the industrial statistician, these chapters are organized in terms of specific factory problems of control. The application of the technique to the process is discussed in detail, with considerable attention to dangers that may lead one into trouble. To help those new to the field, the author draws on his experience to offer some rough tests as to whether charted data are apt to be reasonable or not and to describe difficulties in the interpretation of the data.

Fifteen case histories of control charts in manufacturing plants constitute the material of the next chapter. Selected so as to demonstrate the variety of useful purposes for control charts, the situations include revision of unnecessarily tight specifications to an economical and satisfactory tolerance, selection of a preferred source of supply, clarification of a dispute between a prime contractor and a subcontractor as to the acceptability of products, improvement of process through determination of a variety of causes of error, and even an incentive

to workers for high performance in which the measurement is based on control charts.

The last chapter is devoted to the problems of setting up a statistical quality control program in a company. The position of quality control in an organization, the relationships of the person responsible for such control with both operating personnel and executives, and ways of gaining acceptance for a quality control program are discussed. Both successful and unsuccessful programs are described; special attention is given to programs in which, although the technical aspects were thoroughly sound, the entire program failed because others lost confidence in it as a result of some avoidable inaccuracy or oversight outside the control chart data on the part of the statistician in his dealings with others in the organization. Recommended methods of procedure are suggested not only for starting a program but also for gaining and maintaining recognition of the value of the technique in quality control.

The principal contribution of the book lies in these last two chapters. The case histories should be of interest to businessmen seeking concrete knowledge of the type of help that can be expected from control chart analysis. The advice on instituting a quality control program together with the cautions on easy-to-make mistakes should be valuable to industrial statisticians who may wish to start such a program.

ROBERT W. MERRY

*(Professor Merry is Associate Professor of Business Administration at the Harvard University Graduate School of Business Administration.)*

### *The Pro's of Profit-Sharing*

*Profit Sharing,* by KENNETH M. THOMPSON. 331 pages. New York, 1949: Harper. $4.00.

THIS volume includes a brief history of profit-sharing; a constructive discussion of the distinction that should be made between true profit-sharing and other things given that tag; a summary of the attitudes of labor leaders, economists and some industrialists toward the subject; a stimulating exposition of its social and economic implications; and several helpful chapters of "do's" and "don't's" in setting up a profit-sharing plan.

Thompson wisely repeats what earlier studies have emphasized, namely, that profit-sharing can be an effective element in industrial relations only if the individual company pays prevailing rates, assures a high degree of steady employment, and provides adequate employee benefits, including health and accident insurance, and retirement income in old age.

The value of parts of the book is reduced, however, by the author's unbounded and all-pervading enthusiasm for profit-sharing. He is convinced of its value as a proven incentive for more and better production, as a tool "for penetrating the supposed iron curtain of collective bargaining," and as a technique for strengthening and demonstrating to the world the vitality of democratic capitalism. In 1889, Nicholas Gilman, one of the early students of the subject, said much the same thing, as have many subsequent writers. Yet after all these years, profit-sharing has a relatively insignificant place in industry. Discounting the ragged history of the movement and the high mortality of profit-sharing plans, Thompson uses some 500 quotations and references to support his point that profit-sharing is desirable; if profits are high, they should be shared; if they are low, they can be increased by reason of the higher productivity engendered by profit-sharing. A foreword refers to this book as a companion piece to a manual of profit-sharing issued by the Council of Profit Sharing Industries, which was organized in 1947, and this study appears to have been prepared with the cooperation, if not under the auspices, of that association.

Disregarding the antipathy of many union leaders and the apathy of many employees to profit-sharing schemes, Thompson urges full union participation in the development and administration of a profit-sharing plan. He ignores the problem of the managements that deal with two or more unions and the somewhat forgotten fact that profits presumably ought to be handled by the owners, or by their representatives on the board of directors. "A profit-sharing board composed of an equal number of representatives from labor and management ranks is a democratic arrangement. Decisions pertaining to dividend and loss reserves . . . are all matters within the province of such an administrative board." Elsewhere he suggests that "employees who are asked to participate in the program should be given an absolute guarantee by management that there will be a profit distribution, regardless of the earnings level for a particular year." It is questionable that such proposals will appeal to many employers particularly in view of the fact that, as Thompson acknowledges, wage demands from employees and unions seldom take account of past or potential returns from sharing profits.

To a company that is committed to profit-sharing, or already convinced of the value of it, the book may be helpful, even though it does not deal with the practical hazards of maintaining the effectiveness of a plan.

JAMES W. TOWER

*(Mr. Tower is on the staff of Industrial Relations Counselors, Inc., a New York firm specializing in research and counseling.)*

### *Role of the Junior Administrator*

*Middle Management* (Revised Edition), by MARY CUSHING NILES. 274 pages. New York, 1949: Harper. $3.50.

TODAY the need for greater understanding and for deeper appreciation of the problems of industry on the part of all persons, particularly those engaged in working out these problems, is as vital as it ever has been in the history of our country. Industry is at the crossroads; the path it follows will be governed by the degree of intelligence with which it handles many of the problems so aptly discussed by Mary Cushing Niles in the revised edition of *Middle Management.*

The book spotlights a big group of people within industry whose impor-

tance to the success of an organization is often overlooked. The importance of the supervisor and the foreman in industry has been recognized to a fuller extent in the past few years than ever before. Little has been said, however, about the junior administrator and the part he plays. It is with this group that *Middle Management* deals —the group directly below top management and right above the supervisors, or foremen.

Mrs. Niles outlines, among many other things, the necessary characteristics of a successful junior administrator. She covers his duties or functions in the average organization. She makes us aware of the need for the careful screening of all potential junior administrative material before promoting supervisors to these positions when she emphasizes that it is from this group that top management normally comes.

As the book points out, the junior administrator can, by his attitude, make it possible for a company to avoid the dangers and difficulties of a compartmental organization—that condition in which department lines are artificially rigid and adversely affect harmonious operation of the business.

Among the many "musts" the average business man recognizes as a requirement in any successful organization is the need for the proper delegation of authority and responsibility. This subject is covered effectively in *Middle Management*: the author shows clearly the important fact that the person delegating retains responsibility for seeing that the job is well done—a point too often overlooked.

The advantages of, and needs for, specialization in the large industries of today are adequately explored, and the part the junior administrator plays in coordinating these specialized activities, particularly if he is a personnel administrator, testifies to his value in a going concern.

Mrs. Niles' treatment of the subject of how to make over a department, improve morale, enlist cooperation, and develop supervisors carries a new twist and is supported by case studies that help impress these important phases of business on the reader with little effort.

Her chapters on handling suggestions as a means of developing people and organizing one's own job are worthy of mention. No member of top management, no junior administrator, supervisor or foreman can overemphasize the importance of this subject if he truly wants to arouse the interest and participation of the people for whom he is responsible. These chapters treat the problem of attitudes—that factor that ultimately determines the success or failure of any project—with finesse and understanding. The value and importance of relaxation while at work, relaxed thinking and the benefits it offers, are covered in a refreshing fashion.

I could go on at length in an effort to describe the contents of this book, but I still could not do it justice. In brief, it is written in a style that makes for easy reading and it can be recommended as interesting and helpful to anyone interested in business management.

W. L. McGrath

*(Mr. McGrath is President of the Williamson Heater Company and a leading practitioner of "Multiple Management.")*

### *Developing Teamwork Attitudes*

*Training Employees and Managers,* by Earl G. Planty, William S. McCord and Carlos A. Efferson. 278 pages. New York, 1948: Ronald. $5.00.

THERE is a variety of books on training in the knowledge and skills of an occupation or trade but this book is concerned with a broader objective. Its purpose is "to demonstrate that the goals of teamwork and production in business and industry can best be achieved by a training program designed to improve both the skills and attitudes of employees and managers."

There are three sets of desirable "dualisms" in the purpose of the book —"teamwork and production," "skills and attitudes," "employees and managers." While there is much good experience in print on training production skills of employees, there is entirely too little available on developing teamwork attitudes of either employees or managers.

Whenever the term "training" is used practically every business executive visualizes skills of employees. Even too many training directors do so and too few think of the educational development of desirable attitudes on the part of managers as well as employees. Messrs. Planty, McCord and Efferson have justified their book in merely establishing this broader concept of training so well outlined in Part One of the volume.

Every training director who expects to meet the increasing demands that progressive management is likely to make on him during the next ten to twenty years will want to check his viewpoint with that in the first twenty-six pages. The president or manager, moreover, who wonders whether his training department is measuring up to its possibilities will get some good suggestions quickly.

In Part Two, "Organizing, Installing, and Administering a Training Program," the authors come to grips with the old problems, "Who is responsible for training?" "Place of training in the organization," and "Who should teach?" They recommend a centralization of training activities at the very time that managements in many companies are seeking to put more and more personal responsibilities back on line and operating groups. However, the authors present a clear cut and fair analysis of alternatives that will help any management decide what is best in its situation.

Part Three covers "Teaching and the Training Program." This section appropriately contains brief but helpful chapters on teaching and the training staff and also on the major types of training programs such as orientation; pre-supervision; supervisor and executive; technical and professional; trade and semi-skill; office and business; and general education. The last chapter touches on economic and civic education.

The final three chapters cover "Private and Governmental Resources," a time-saver for training directors; "Problems of the Small Company," so often overlooked; and "The Integrated Program," a summary that every training director will find valuable in

building appreciation of and financial support for his program, if it deserves it.

The book should be in every training man's library; personnel men related to training but not responsible, should have it at their elbows and top management should be shown selected sections of it.

THOMAS H. NELSON

*(Mr. Nelson is President of Executive Training, Inc., an affiliate of the consulting firm of Rogers & Slade, in New York.)*

### *Executive's Handbook*

*Training Employees,* by GEORGE D. HALSEY. 263 pages. New York, 1949: Harper. $3.50.

MR. HALSEY appropriately states that *Training Employees* "is intended primarily as a handbook for every day use." It is a handbook emphasizing specific methods, giving sample programs as illustrations and briefly pointing out guiding principles or points of view that underlie the concrete programs discussed.

The book is directed to both the operating executive who wants a better job of training done and to the staff executive who may be responsible for planning and coordinating the training or even for actually doing the training himself. The emphasis is so evidently on methods of determining needs, planning the program, building the training materials and experience and conducting the sessions (or processes) that one is likely to minimize the principles that are briefly but clearly presented.

Chapter II, "General Teaching Principles Applied to Training Employees," presents a psychology and "pedagogy" that every real training man should already know but that many operating executives need to have stated for them in just such understandable terms as Mr. Halsey uses.

Increasingly the operating executive is being urged to take definite responsibility for seeing that training needs are identified and appropriate training provided. Even the foreman is being pressed and equipped to do more teaching and training. Halsey states that "at least half of the average executive's work is teaching in some form."

However, there is too little in the typical experience of the line operating executive who has depended upon his technical knowledge and position of superior rank and authority that will help him be a good teacher or trainer. The operating executive needs a basic understanding of the principles of developing subordinates. Halsey gives this understanding in his Chapter II on teaching principles and Chapter III, "The Basic Training Pattern."

The remaining chapters seem to fall into three major groupings. One group treats with types of training methods, such as the conference, guided discussion, use of visual aids, and improving employee attitudes. Another group deals with training programs for different groups such as industrial workers, apprentices, office workers, retail stores, outside salesmen. A third group covers training programs for specialized purposes such as safety, training for promotion, fitting the college graduate into the organization.

One is tempted at first reading to say that too wide a scope has been attempted because it is evident that so broad a field cannot be completely covered in 261 pages. On the other hand a much longer book would be of little value to the operating executive and it is surprising to find how much concrete and helpful material the author has packed into a few pages on each major topic.

The younger training director, the instructor in the training department and the operating executive will get many good suggestions from the volume. The experienced personnel or training executive will find it helpful in stimulating the line organization to understand and appreciate training.

THOMAS H. NELSON

### *Manager's Reference Book*

*Managerial Control of Business,* edited by GEORGE T. TRUNDLE, JR. and others. New York, 1948: Wiley. $5.00.

THIS single volume purports to cover "the entire field of business management." As might be expected from the authors' experience, the work has drawn upon the well known consultants' "check-list" that is frequently used for their introductory surveys


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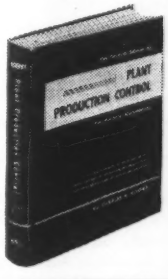


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and for training their personnel. Much space is given to generalizations, so much that it is impossible to take issue with the principles laid down. Because of the extent of the material covered, details are necessarily limited. Case examples are infrequent, and the number of illustrations is small.

The book contains relatively little on "how" to manage, but does include a wealth of information, in clear-cut, easy-to-read form, of "what" is essential for the complete control of a business according to the most modern concept of management. It should be of interest, and even useful to the manager of a small or medium-sized business, where, as the authors point out, "owing to limited size, the company cannot permanently employ specialized staff talents for management and industrial engineering." In these cases (which, incidentally, still comprise the bulk of the businesses in this country) where the typical executive, whether he be a general manager or in charge of manufacturing, sales or industrial relations, is responsible for several different functions, this book can be handy as a reference when developing programs for more intensive control, or as a guide for self-evaluation of the individual's organization. Its arrangement should stimulate independent and logical thought, while practical application has been made relatively easy.

RUSSEL F. HURST

*(Mr. Hurst, in addition to being Assistant to the Vice President for Manufacturing of the Bigelow-Sanford Carpet Company, is Chairman of the Committee on Administrative Organization for the Management Division of A.S.M.E.)*

### *Symposium of Liberals*

*Saving American Capitalism,* edited by SEYMOUR HARRIS. 373 pages. New York, 1948: Knopf. $4.00.

THIS symposium, by twenty-four of the New Deal experts, is an excellent survey of present-day liberal thought on political economics. Liberalism is far more definite and mature than it was fifteen years ago, though it still has problems in sight and not yet mastered.

The main outlines are clear. Prosperity depends on total spending; if we spend too much we get inflation; if we spend too little we get depression. The Government is responsible for results and therefore for managing at least its own fiscal policies to reduce any unbalance that may occur in business. It is the details that are complex and not yet well enough grasped to assure reasonable stability. The authors are not entirely clear, for instance, on the meaning of oversaving, or of the fact that trying to make investment match saving is dangerous if saving is excessive. The possible release from this dilemma through insurance pooling, especially social security, is not clearly stated, though the editor evidently has a general idea of it.

Auxiliary features of liberal economics are well covered—education, health, the conservation of physical resources, and scientific research — the maintenance functions that have to be promoted by liberals only because so many conservatives are not intelligent enough to behave conservatively.

Of particular interest to management engineers is the question, on which liberal opinion is badly confused, of the proper scope of centralized private control and government interference in business policy, especially related to prices, wages, output and expansion. Traces of a sneaking fondness for N. R. A., or for some other form of organized planning by the managers and labor leaders for whole industries, are all too common among liberals, especially among those who are impressed with the notion that bigness is efficient. At this point the contribution that can be made by human relations engineering may be far more potent than even the engineers recognize. The necessary limitation of a human relations program to a single firm, if the program is successful, will

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DAVID CUSHMAN COYLE

***A Comprehensive Guide***

*Job Evaluation,* by JAY L. OTIS and RICHARD H. LEUKART. 473 pages. New York, 1948: Prentice-Hall. $6.65.

IN THEIR preface, the authors set forth their intention to provide "an organized presentation of the essentials of wage and salary administration based on job evaluation." They have accomplished this purpose admirably: the book is comprehensive, well organized and readable.

The authors' stated objective and the scope of the book, however, exceed the limitation suggested by the title. It will be unfortunate if this discrepancy deters readers seeking information about the broad aspects of wage and salary administration from including this title in their reading or reference lists. This difference between title and contents is also unfortunate in that it contributes to the considerable confusion that already exists about the distinctions between job evaluation and wage and salary administration. Those with experience in this field have all encountered difficulties caused by loose use of terms. Without laboring the point, I should say that a purists' crusade is indicated.

The authors also state that "such a book makes it unnecessary for business executives, their employees, and union representatives to rely on their individual abilities to distill out of the many separate sources an understanding of the essence of sound wage and salary administration and its techniques." Numerous footnotes and an extensive bibliography prove that they have done substantial research in the


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preparation of this book. To imply, however, that their ability to distill the essence out of many separate sources is more to be relied upon than that of business executives *et al* is somewhat presumptious.

Another reviewer, an advocate of the "Factor Comparison" method of job evaluation, finds some fault with their treatment of this method. Others, including this reviewer, will find fault with some of the emphasis, or lack of emphasis, that is placed on other material. It is difficult to quarrel, though, with what the authors say, even if it is said differently.

Since the book is admittedly, in large part, analysis of existing literature, much that is presented is not new. Messrs. Otis and Leukart are to be commended for a vital presentation of such material. In addition, they include warnings concerning practical difficulties encountered in applications of job evaluation, and they make suggestions for avoiding or correcting similar situations. There is nothing ivory-tower about this book; I recommend it wholeheartedly.

T. W. COLLINS

*(Mr. Collins is Director of Wage and Salary Administration for the Pittsburgh Plate Glass Company.)*

### *Achieving Business Continuity*

*Managerial Enterprise,* by OSWALD KNAUTH. 224 pages. New York, 1948: Norton. $3.00.

RETURNING to "an interrupted career as an economist" after twenty years of active and successful merchandising, Oswald Knauth examines in this book the large corporation, its policies, practices and functions, and sees a new form of economy, "managerial enterprise," evolving. It falls in between free enterprise, from which it evolved, and monopoly—the two economies recognized by classical economists.

Managerial enterprise is defined as a "system of production and distribution, unified by policies and controlled by managers, whose main idea is to administer the business that concerns them in the interest of continuity." Its distinctive features are "a large capital investment useful for a single purpose

but of maximum efficiency for that purpose," "action based upon policies formulated to achieve strengthening of the business," "creation of a demand constant enough to permit planned production with prices decided upon in advance," the "separation of ownership and management," the "ability to increase production at lower costs" and, "finally, and above all . . . continuity of operation." Its main concern is first to survive and second to increase its trade position. It is made up of all organized industry in the United States and constitutes one-half of our total economy.

Managerial enterprise has no outstanding goal, such as the profit motive of free enterprise, or the service to the state of collectivism, by which it may be judged. "Managerial enterprise is entwined with the national economy. Its acts are important, not only to itself but also to others and often to the community. It has to succeed or it disintegrates, yet its success cannot be at the expense of the community." No standards of conduct or ethics to cover its sometimes conflicting responsibilities have been worked out. It is frequently condemned when judged by the standards of the other economies. "The methods of managerial enterprise and of monopoly are poles apart. Managerial enterprise must ever look after the advantages that constitute its trade position . . . Its impacts on the social life of the country have been correspondingly extensive and deep. To it can fairly be attributed the great productivity and the high standard of living in the United States."

The readable and interesting description of the methods of corporate business or managerial enterprise that constitutes a large part of the book contains many stimulating observations. For example, with respect to the determination of prices, no simple explanation suffices: "At one time they (managements) stress stability; at another, the possibilities of capturing an expanding market; again the need of covering costs when demand is declining; still again, the strength of direct competitors. Out of this welter of circumstances, potentialities and policies, prices emerge."

Some of Knauth's comments will be disillusioning and deflating to corporate management. For example, "the degree of success that the management must produce to remain in office is surprisingly small. Indeed management must fail obviously and even ignominiously before the dispersed forces of criticism become mobilized for action." Again, "everyone who has taken part in the management of an old-going concern is impressed with the momentum it has acquired—orders come in and production goes on as a matter of routine." Again for the cost accountants, "cost accounting is a direct offshoot of managerial enterprise. By its allocations, management can rationalize almost any course of action or justify any extravagance."

There is a stimulating discussion of the problems facing management today: "To function effectively managerial enterprise requires a degree of voluntary cooperation among its several parts far exceeding anything contemplated in free enterprise." In discussing employee relations, however, Mr. Knauth does not give enough attention to the importance of employee benefit plans. Neither does he stress sufficiently the importance of providing steady employment. Many companies have made much progress in this direction but there is still much to be done —as the high labor turnover figures indicate. There is an interesting chapter on the allocation and division of corporate income. The management of industrial companies would probably feel that the author does not give high enough rank in his allocation to the expenditures for research.

While managerial enterprise is the result of a basic evolution that cannot be halted by legislation, the author points out that it may be upset so that it will fail to move forward unless a philosophy of such an economy is developed. In finding the answers to these factors, the search must be for the combination of stability and initiative that will "make managerial enterprise the form of economy that holds most promise of serving the manifold needs of our progressive society."

This book provides a timely and thought-provoking perspective for the

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*(Mr. Folsom is Treasurer of the Eastman Kodak Company.)*

***Mis-matching of Man and Job***

*Job Horizons,* by LLOYD G. REYNOLDS and JOSEPH SHISTER. 102 pages. New York, 1949: Harper. $2.25.

*Workers Wanted,* by E. WILLIAM NOLAND and E. WIGHT BAKKE. 233 pages. New York, 1949. Harper. $3.00.

THESE books are companion pieces. They try to answer the questions, "What does the employee look for in a job?" and "What does the employer look for in an employee?" The answers are sought in materials gathered chiefly through interviews and the data seem well guarded against the hazards inherent in the method.

One may read the books from the point of view of the worker looking for a "good job," or the point of view of the employer looking for a "good man," or the point of view of effective and efficient use of human resources. From all of these points of view the situation as analyzed is depressing. The happy marriage of a "good man" to a "good job" is not only heavily subject to chance but is hedged with factors that tend to reduce the chances with each mistake. Here, too, "divorce" does not lead to a fresh start. The worker who has spent a few years on a job unsuited to him finds that the odds are against his getting a job different from the one on which he has had "experience." For the employer, on the other hand, the mis-matching of man and job does not lead to anything as easily recognizable as increased turnover. The interviews reveal that the dissatisfied worker has, in general, no definite plan. His discomfort tends to result in low output and poor morale—not turnover.

Obviously, the crucial point in this vicious circle of decreasing chances for an adjustment of the employer's and employee's needs is at the very beginning—the first job. Yet it is precisely here that the fumbling nature of the attempts is most clear. In the eyes of the employer, one of the leading requirements of an applicant for production work is one to four years of experience in the same type of work. This is nothing if not reasonable. But let us look at the way in which the "first-jobbers" are likely to get their chance at experience. Almost half of them, when looking for their first job, have no occupational goals or plans. Most of them tend to take the first job found. All the evidence points to the fact that the first job is found in a haphazard manner with no apparent relationships between ability and the job taken.

These volumes deserve a great deal of study. While they answer many specific questions regarding employees and employers in the hiring situation, their chief value may lie in the questions they prompt one to ask and the corrective reaction that they may stimulate.

ALEX BAVELAS

*(Alex Bavelas is Assistant Professor of Psychology at M.I.T.)*

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THE political structure embraces the highest aspirations of the truly great, together with the venal plottings of those devoid of social vision. This structure is so related to the life of mankind that were it to be destroyed today it would, by the irrefutable logic of necessity, be reconstituted tomorrow. Admitting the waywardness of politics as we may and must, we engineers cannot continue to stand aloof. In most of our lives community-minded citizenship must take precedence over professional status. The extent to which science and engineering meet the mounting threats to our collective well-being, even to our very existence, will be in direct relationship to our ability to live in relative peace and harmony—at least in sympathetic understanding—with our political agencies. We must learn to live with those political agencies through which the results of our labors are actually installed for the benefit of the people. In the atomic-fission field, experience proves that to secure the unprejudiced attention of government and politics in our capacity to serve is one problem. To learn the art of serving with appropriate humility may prove to be even more difficult. This means, for our groups, "public relations" on the grand scale.

The engineers with the scientists—including the social scientists—have all the tools there are now. It is not more science or better engineering we need in the present emergency so much as the prompt application of what we have. But the will of the human race to authorize the application of present knowledge is politics—essentially community behavior. Some of this behavior is less commendable than the rest. But if we are to act greatly we must learn to live with it—the good with the bad. The chasm which now separates engineering and politics must first be bridged to meet current emergency conditions. Ultimately, the gap between engineering and the life of the people must be closed. Only so can engineering be made another manifestation of that Ultimate Reality to which the human spirit itself is kinsman.

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